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ART. I.—*The Replier replied to, and the Reviewer reviewed*—A letter to Lunsford P. Yandell, M.D., containing Strictures and Thoughts on the errors and false doctrines of Chemico-Physiology. By CHARLES CALDWELL, M.D.

DEAR SIR—

This letter will consist chiefly of extracts from a much longer and more multifarious one, not yet published, but containing materials for a separate work, which may perhaps appear at some future period. Being therefore, in its structure, the product of an effort at literary *patch-work* (a form of book and essay-making in which I am neither practised nor skilled, and toward which I have neither predilection nor ambition) you will not I trust expect to find in it an ample exhibition of either compactness or neatness, order or symmetry. If

you do, you will be disappointed; for, in the management of mental no less than of bodily materials, I am a very ordinary and every-day mechanist. In arranging and joining together the fragments destined to compose this communication, my principal aim will be, so to dispose them, as to render the production clearly intelligible, correct in fact and sound in argument, pertinent in matter, and direct in its bearing on the important end it is designed to subserve.

Your review of my Critique on Animal Chemistry, published in the December number (1843) of the Western Journal, is the original source of this letter. Had not that publication been introduced to my attention, this one would never have been obtruded on yours. Whatever therefore may be the issue, directly or indirectly, for good or for evil, of the article I am writing, will be, in a great measure, if not entirely, the fruit of your action. If valuable, yours will be much of the merit and credit; if the reverse, a corresponding share of the blame will be yours.

To apprize you of the immediate purport of my letter, and to enter on the business of it without further preface or delay, allow me to say, that I consider your review as not only a very extraordinary, but, *in several respects*, a very injudicious and *exceptionable* paper. Nor, in its objectionable qualities, does it present only a single aspect. Far from it; as a brief exposition of it will satisfactorily show.

It is exceptionable in its bearing on science; because, as will presently be made appear, it is replete with error, groundless representation, and false doctrine—exceptionable toward yourself, as a writer and reviewer, because it abounds in striking instances of self-inconsistencies and self-contradictions—toward my critique on Liebig, because the estimate it places on it, as a production of intellect, is far below that which it has received from every other publication, within my knowledge, in which it has been noticed, and no less, as I verily believe, and shall endeavor to show, below what justly comports with its merit—and objectionable toward myself in the following particulars.

It represents me as little else than one of the dullest and weakest minded of men, by denying to me the possession of a sufficient amount of reason and ability to frame and offer a single sound or "plausible objection" to any portion of Liebig's Animal Chemistry, and of penetration and sagacity even to *detect* the errors which actually exist in that publication.

It imputes to me the most consummate, persevering, and culpable negligence, as respects the study of physiology, and its necessary consequence, a corresponding degree of ignorance of that branch of science. That imputation, so fatal to my standing if true, it attempts to make good, by proclaiming me to have been *asleep toward physiology*, and all the improvements and discoveries made in it, DURING "THE LAST HALF CENTURY!!"

Lastly, if my ears have not deceived, or my memory betrayed me, or the two conspired to delude and mislead me, the tone, temper, and tenor of your review have been regarded with surprise, and deeply condemned, by every intelligent reader of it, of whose opinion respecting it I have heard an expression. And not a few such expressions have reached me—some of them very recently. Several of our common acquaintances have even seriously asked me, after a perusal of your review, whether there had not occurred between you and myself *an open quarrel?* And, on my replying in the negative, they expressed their *astonishment*, that, without such a cause, you had written such a paper. Nor did their sentiments of the subject differ from my own.

When I first looked into your review, I was actually amazed at the spirit of *apparent* unfriendliness, not to say *hostility*, which imbued and pervaded it—beginning on its *first* page and terminating on its *last*. And, that which on its face, was perhaps *only apparent*, seemed changed into *reality*, by certain forms of expression, the symbols of discourtesy, taunt, and disrespect, which, without any studied attempt at concealment, project from many of its pages, too much "like quills upon the fretful porcupine." To express myself on the subject summarily and significantly, no consideration short of a

serious quarrel, or a determination to provoke one, could induce me to review in a manner so actually *unfair*, and so apparently *inimical*, a work from the pen of either of my colleagues—or in truth of any other respectable writer. The unfairness of the review, should a call to that effect be made on me from the proper source, I am prepared to demonstrate. But I cannot do so, on the present occasion, without an inadmissible protraction of this letter.

True; in a conversation on the subject, invited by yourself, you frankly disavowed the *premeditated design* to introduce into your review of my Critique, in substance or manner, spirit or language, any thing in the slightest degree offensive or exceptionable to me. And, for two reasons, I fully confide in the sincerity of your declaration—the guaranty of your veracity as a christian, and of your honor as a man; both of which were specially invoked in your disavowal—and the *fact*, that you had never experienced from me the shadow of a cause for an offensive act, or an exceptionable word.

Still, however, your review, with all its *seemingly exceptionable qualities*, is abroad in the land, through the instrumentality of the Western Journal; and its influence can be met and nullified by nothing short of a *public* disavowal, through the same work, and to the same effect, with that which you made privately and verbally to myself.

Of the several exceptionable features of your article, I have spoken somewhat fully in the manuscript, to which I have already alluded. But, for want of room, I cannot include the consideration of them all in this letter. Nor do I deem the measure, at present, either necessary or important.

Your own disavowal in the last number of the Journal, has extinguished the feature to which it relates. And the charge against me of my "*fifty year's sleep*," in relation to physiology, and its associate branches of knowledge, is so wild and extravagant, as to carry along with it, *in its utter improbability*, its refutation and overthrow. No one, even of the "*million*," who have only heard my name, will receive

it with credit. Hence it is dismissed, for the present, as having no claim to further notice. Yet to exhibit, in still bolder relief, the enormity of its departure from fact, I say fearlessly, that, however humble my productions may have been, I have written and published, during the present century, on physiology and its connexions with chemistry and other branches of knowledge, more—much more than has ever been done by any other American—perhaps in the proportion of *three to one!* Hence I have assuredly been *awake* to it!

But two features then which demand my attention remain—your attempted disparagement of my Critique on Liebig—and the false doctrines you have endeavored to sustain. To them alone therefore shall my strictures be confined.

In testimony of the failure of your attack on my Critique to effectuate its purpose, I shall introduce the following extract from my manuscript.

Having already very slightly adverted to the fact, I now repeat, and shall prove my position, by an adduction of testimony, that, as far as my information in the case extends, not a single reviewer or writer, of standing and authority, in the United States, concurs with you in opinion, respecting the *distinguished* and *unqualified* merit of Liebig's chemico-physiology, and the *corresponding demerit* of my Critique on it. For, as regards the two productions, you deal in *wholesale terms*, pronouncing the former excellent nearly throughout, and the latter possessed of no excellence at all. I shall forthwith, however, present you with a different view of the matter, and evince to you that several writers of ability and eminence, on both sides of the Atlantic, whose names I shall cite, unite in sentiment with me, as regards the philosophy of Liebig, and are in direct opposition to you, in relation to the soundness and ability of both *his* writings and *mine*—condemning the *former*, and commending the *latter*. And of these, some are professed chemists, as well as physiologists.

Among the writers of the United States, I shall first refer to

Dr. Hare, the celebrated and veteran Professor of Philadelphia, one of the ablest and most accomplished chemists, both scientific and practical, that our own, or any other country has produced. Against some of the errors and faults of Liebig he has sternly protested, and spoken of them in terms as well as sentiments, not dissimilar to those which I have myself employed. To his writings therefore I am authorized to appeal, in support of the belief, that my Critique is by no means the weak and worthless production that you have pronounced it. Nothing resembling the writings of Professor Hare can be justly regarded as of a caste so degraded.

In his introductory lecture of last autumn (1843), that distinguished gentleman, after having bestowed, as I myself have not failed to do, high commendation on the Professor of Giessen, on account of some portions of his writings, proclaims other parts of them to be, in his own strong and decided language, "in various instances, *bold*, *hasty*, *inconsiderate*, and *inaccurate*." And such is the very charge that I had previously preferred against them—a charge however of which Professor Hare was wholly uninformed.

Nor is this all that the illustrious chemist of Philadelphia has alleged in opposition to Professor Liebig. Far from it. In his further strictures on his writings, he likens that far-famed and ambitious innovator to a "military leader, who, after marching through a country with drums beating and colors flying, should have his triumphs loudly sounded, as if a complete conquest had been effected, while leaving behind him fortresses, of which the knowledge had prevented more cautious and considerate leaders from having previously undertaken the same expedition." Nor does he halt even here in his unsparing condemnation. In addition to the foregoing, he expressly declares that, in his own words again, "the philosopher of Giessen has deluded himself and the readers of his essays with the prospect of an elucidation of the mysteries of animal and vegetable physiology, *which it is beyond the present state of chemistry to afford*." Ay; and let me add, be-

yond *any* state of chemistry; because those mysteries *pertain exclusively to another science—the science of life.*

Such are the expressions of Professor Hare, in relation to the philosophy and proceedings of Professor Liebig, and such their similarity to declarations in my Critique, of which you have spoken in terms of the most unqualified disparagement and disrespect. In truth your great leader in chemico-physiology has plunged into the grossest of blunders, from the same cause which has inflicted so serious an injury on your review of my Critique—*negligent investigation*, *over-hasty composition*, and *assertion beyond fact.*

When that celebrated chemist is in his laboratory, *performing experiments*, I have no doubt of his great ability, accuracy and skill. But, when in his study, engaged in his *speculations*, I have as little doubt of the unbridled wildness, extravagance, and fallacy, in which he indulges. His writings clearly evince, that he is alternately under the influence of the two opposite conditions of mind, calculated for the production of these two opposite results. Hence the glaring inconsistencies of his doctrines, and the mischief they portend to hasty readers and superficial thinkers, who neither calmly reflect, nor clearly discriminate.

Dr. Kemp, another highly respectable American chemist, has spoken with directness and decision against the hypothesis of Professor Liebig. Nor do I feel myself forbidden to add, that, on his late visit to this place, the Professor of Chemistry in Yale College, whose competency to decide on such subjects can hardly be surpassed, though he highly commended Professor Liebig, in some respects, spoke cautiously of him in others, and respectfully in all, did not however either conceal or in any way disguise his conviction, that, on several points he had asserted in his writings what he had not succeeded in verifying in his laboratory—and that, in so doing, he had not conformed to the canons of chemistry, as *an exact science.*

In condemnation of many errors and extravagancies in the works of Professor Liebig, Dr. Bird, an American physician.

and a very able writer, cordially and earnestly unites with me, in the strictures and thoughts contained in my Critique on Animal Chemistry.

Were it not that the extract would add too much to the length of this letter, it would be gratifying to me to insert in it a passage or two from that author, that you might, with the less trouble, become acquainted with the striking similarity of his objections and mine, in both matter and manner, to one of the most extraordinary and ludicrous blunders, or wanton fabrications (for such blunder or fabrication it certainly is) that discredits the pages of medical literature. It is a bold and broad assertion to the following effect:

The carbonic acid gas, produced by the fermentation of unripe wine, in the stomach of a Dutchman, passes through the entire walls of that organ, consisting of mucous and cellular membranes, blood-vessels and nerves, muscles and peritoneal envelope—through the diaphragm, with its peritoneal and pleural linings on its lower and upper surfaces, through the substance of the lungs and their pleural covering, and, continuing its course, makes its way also through their mucous lining into their air-cells, and, by usurping and retaining possession of them, to the exclusion of atmospherical air, strangles, poisons, or by some other mode of action, takes away the life of the unfortunate Dutchman!!!

Such is circumstantially the story narrated by Liebig, and endorsed by yourself—for *substantially* you *have* endorsed it!! And if there be, in the wide scope of tale-telling, fable-framing, and wonder-weaving, in this age of fable, tale, and wonder, a single fiction that falls short of it, in *vraisemblance*, I know neither *where* it is, nor *what* it is. Nor do I believe in its existence. Yet have you, I say, through the influence of some unaccountable hallucination, virtually proclaimed and recorded your adhesion to it, in common with its author's other aberrations from sound fact, and sober probability.

In case of your being curious to peruse Dr. Bird's animadversions on this new "Legend of the Rhine," you may find them in Bell's "Bulletin of Medical Science," vol. I., July No.

p. 260. Introductory to the animadversions, moreover, you will find, in the same page, the editor's notice of their striking similarity to my own remarks on the same subject, in my "Physiology Vindicated."

But why should I any further trouble either you or myself with this *full-grown* air-penetrating and air-rambling story? since you have yourself procreated in *embryo*, one but little inferior to it, in all that awakens incredulity and excites surprise. In reply to some remarks, in my "Physiology Vindicated," on the respiratory apparatus of birds, you observe:

"This is easily answered. The permeability of the bones of birds by the atmosphere being admitted, the *chemist asks no more.*" (Yes, but the *physiologist does.* He asks for a *specific organ* to perform a *specific function;* and from *nature* he always receives it. But you offer to him only a *common* organ to perform a *special* function, which he instinctively rejects; because nature commands him to reject it. He "asks for bread," that he may swallow and digest it, but "you give him a stone," which he can turn to no useful account. But to let you proceed with your tale). "He," (the chemist), "knows that the air, once in contact with the moist animal membrane, has no difficulty in reaching the circulation. It does not obviate the difficulty, denying that these air-tubes are part of the true respiratory apparatus. It is enough that oxygen finds its way into them."

Without taking the trouble, and spending the time requisite to analyze this extraordinary scrap of chemico-physiology, I shall briefly observe, what every one must perceive, that its object is to create a *substitute for the lungs*, in the momentous function of the *arterialization* and vitalization of the blood.

According to this *new school scheme* of yours, in cases of defective respiration, open and shut the mouth repeatedly, allowing atmospheric air to come into contact with the "moist animal membrane" that lines the cheeks and fauces, swallow it repeatedly with saliva, bringing it thus into contact with

the moist membrane which lines the œsophagus and stomach —erase the cuticle extensively, so as to give it access to the moist cutis vera—or more especially, inject it copiously with a syringe *per anum*, and give it free admission to the moist membrane lining the large and small intestines—adopt, according to the exigency and character of the case, any or all of these expedients, to bring the atmosphere into contact with a "moist animal membrane"—and a fig for the lungs and their function!—the blood, especially as the *bones* are to aid in the process, will be arterialized and vitalized without them—and the other functions of the body will go healthily and cheerily on! Such is your scheme of respiration and the revivification of the blood, which, if carried out to its full length, *would be infinitely ludicrous.* But I can pursue it no further. Leaving it therefore to the keeping and tender mercies of others, I shall return to the topic, from which I have digressed.

Having finished all I mean to say, for the present, in relation to Americans, have the goodness to accompany me to Europe, that I may exhibit to you some of the testimony to be collected there, respecting the subject I am now considering. And here again, for the sake of the conciseness imposed on me, by considerations which I may not resist, instead of crowding my pages with extracts from books, I shall be compelled simply to refer, by name and place of residence, to writers, who have recorded their views of chemico-physiology.

In France, Dumas, Virey, and Boussingault, whose reputation and standing are too high, and too well known to need any commendation—in Ireland, Graves and Stokes, two of the ablest medical philosophers and writers of the day—and in England and Scotland, Pereira and others, in no way their inferiors—all these writers, whose works are their passports to distinction and authority in science and letters, have placed on record their sentiments of many of the chemico-physiological and pathological fancies of Liebig and his followers; and their condemnation and rejection of them are unani-

mous and unqualified. And of three of those writers in particular, Virey, Graves, and Pereira, I may now say the same that I have already said of Bird. They have selected from Animal Chemistry, for their strictures and disapproval, the very same errors and fallacies that I have myself selected, in Physiology Vindicated. Nor is this all. Their objections against those faults rest on the same ground; and, in their illustration and defence of that ground, they have not only adduced the same facts and matters of argument, but have employed them very much in the same way. In truth, though they and myself wrote about the same time, in different and remote quarters of the globe, and without the slightest suspicion of what each other were doing, we have notwithstanding, on sundry topics, written so strikingly alike, as almost to subject ourselves to the charge of mutual plagiarism. And that instinctive and unconcerted unanimity of sentiment alone, independently of other considerations, amounts to evidence of no ordinary validity, that we are correct in our views of the points contested, and our antagonist incorrect. Our common unconventional agreement with each other resembles the harmony of unperverted perception, judgment, and common sense with what is natural and true, and their antipathy to the reverse.

The facts, however, which have been hitherto adduced, are but *indirectly* evidential that my Critique on Animal Chemistry possesses much of either ability or truth. They show, indeed, its concurrence in fact, opinion, and argument, with other productions of acknowledged ability and value on the same subjects. But that amounts to nothing more than presumptive testimony, that its merit and value are in any measure equal to theirs. Permit me to trouble you with a few further facts and considerations testifying more immediately and expressly to the valuableness, in both matter and manner, of my "Vindication" of physiology from chemical adulteration. And here I am compelled to ask your indulgence in accompanying me in my return to our own country.

In every *respectable* and *authoritative* Medical Journal of

the United States, I think, but *one*, my Critique has been noticed. And in each of them, the Western Journal excepted, it has received not mere approval, but *actual encomium*, sufficiently lofty to satisfy the craving of the most ambitious writer.

True; the veteran and well-disciplined editor of the Boston Medical and Surgical Journal, finds fault with what he considers an excess of severity and reprehensiveness in some of my strictures on the writings of Liebig, and the mistaken judgment of those who have inordinately overrated them. But, notwithstanding this, he pronounces the Critique a work marked by even "gigantic powers of mind"—and declares, that, had it not *been* for his "Ishmaelitish temper and inordinate ambition" its author might have been, "twenty years ago, a dictator in medicine in the United States." I have not, at this moment, the Boston periodical before me. But such *precisely* are the sentiments expressed in it, and such, very nearly, the language employed. If the encomium is too lofty, the fault is not mine. On the erring judgment and taste of the editor let the blame descend.

As respects its matter, argument, and manner, as well as its style, the able and accomplished editor of the New York Journal of Medicine speaks of my Critique in the language of panegyric. And no less complimentary to it have been his private letters to me.

Of Dr. Bell, of Philadelphia, decidedly one of the ablest and most impartial reviewers in America, the same is true. His notice of my Critique, in his Bulletin of Medical Science, (July No., 1843, p. 247), is quite eulogistical. A few of his remarks are as follows.

"But among all those who have stepped forward to do battle for the right, to defend physiology against the usurpation of one of her hand-maidens, chemistry, we will venture to say, that no one gives keener and more home thrusts than our veteran friend Dr. Caldwell.

"On the subject of animal heat the criticisms and corrections of Dr. Caldwell are numerous and cogent, based as they are on physiology, and amply illustrated by references to

natural history and anthropology—the habits of animals and of man in opposite and contrasted climates. Even as a mere exercise of intellect, as a rich repast composed of stores of observation and learning, the essay before us merits careful, as it will secure, when once taken up, an eager perusal by the medical student, we care not whether he be a tyro, or one deeply read in his profession."

Would the celebrated editor of the "Select Medical Library" and of the "Bulletin of Medical Science," who has examined and reviewed, I believe, more medical works than any other man in the United States, who is proud of the reputation as a reviewer, which he has already achieved, anxious to retain, and ambitious to augment it—would a gentleman of this description thus applaud a work neither characterized by "general ability," nor containing either "one solid objection, or one "plausible argument," and whose author, in consequence of his negligence of "*fifty years*" toward its subject, is of necessity supremely ignorant of it—is it, in the nature of things, possible for an *anomaly* of this kind to occur? Put the question to *common sense* and experience, judgment, and *conscience*, and, from their reply, my Critique will have nothing to fear. Call you this the language of vanity and self-applause? I call it the award of PLAIN TRUTH,—and an enlightened and fair-minded community will concur with me in the significancy and correctness of the name.

In numerous letters received from correspondents, similar commendations have been cordially bestowed, on my "Physiology Vindicated." The following extract, in relation to that work, is from a private letter, by Professor Paine, of the Medical Department of the University of New York—one of the most erudite and able physiologists of the age—and I am permitted to publish it:

"The whole work "(Physiology Vindicated)" is admirable throughout. All the facts are pointed—the arguments perspicuous and forcible, and the conclusion irresisitble. What you say of the ability of the system to absorb and render latent a certain amount of the caloric of high surrounding temperature, as shown by the experiments of Fordyce, &c., is

strictly original, and of great importance. I can at present see no mode of escaping your reasoning and conclusions."

I received also, but a few days ago, from one of the ablest medical philosophers on this side of the Atlantic, or indeed on either side of it, a letter, from which the following is an extract. After paying to me, on the ground of certain articles of mine, published in the three last numbers of the New York Journal of Medicine, a compliment, which I shall not here repeat, he proceeds to say:

"I see by the foreign journals, and by private letters, that Organic Chemistry is fast on the wane in Europe. It was one of those *convulsive paroxysms*, that, now and then, shake the moral world with omens of complete destruction; but which as speedily pass away, and, like the shock of an earthquake, leave things as they were before. Truth will soon shine with greater lustre; and therefore I never regret those violent tornadoes; however much I may have breasted myself to the storm. It is even pleasant to look back, and to feel that you are not yourself swept away by the hurricane, and that you had the daring to brave its fury. Who now remembers or cares for Liebig's new philosophy in all America? It seemeth but a dream to that multitude of enthusiasts, who worshiped without the slightest knowledge of the subject of their adoration. I never met with one who could tell me what it was that had called forth his admiration; and, when pushed for a reply, all, save one, confessed that they had never perused the work which called forth their idolatry! A reviewer, ardent in its praise, admitted that he could never get beyond the *four or five first pages!* So much for Liebig, the credulity, and fashion of the intellectual world!"

My own experience in the matter has been very much the same with that of my able and distinguished correspondent. Yourself perhaps excepted, I have never seen a *fairly ignited* admirer and votary of Liebig, who had even *read* his Animal Chemistry, (I mean the entire work), much less *studied* it. Yet if not carefully studied—much *more* carefully indeed than most persons will ever submit to the toil of doing, that

work cannot possibly be understood, in the entire extent and depth of its *folly and extravagance.*

Nor have I ever yet seen a physician, who, however ardent and enthusiastic he might be in his praises of Liebig, was willing seriously to say, that he had derived, from the writings of that author, a single fact, or thought, or suggestion, in the slightest degree useful to him in either the science or the practice of his profession. Nor can such useful matter be found in them. If my memory deceive me not, I have heard, from your own lips, an express acknowledgment that his pathological and therapeutic speculations are *worthless.* Somewhat to strengthen your expression, I pronounce them *sheer balderdash!* And whatever vehemence or even bitterness of contradiction the *Faithful* may offer to the sentiment conveyed by these words, I defy their disproof of it. Nor do I stop here.

I further say, without hesitation, that, as concerns his notions of the functions of living organized matter in general; their causes, laws, and modes of performance, Liebig is but a meteor, which, in the night of their ignorance, flashes, attracts the gaze, and excites the admiration of the *many*, without, however, long misleading the senses of the *few*, and on the opening of the daylight of reflection and truth, like mist under sunshine, fades and disappears.

Such is the aggregate of all the testimony I have time and room to submit to your inspection, but not even of a moity of what might be easily adduced, in support of the belief, that my Critique on Liebig possesses much more ability and merit, as a specimen of science, and a work of intellect, than you have conceded to it. And, were your review now to be written, I confidently believe that one of the two following issues would occur. Either you would not write it at all—or you would embody in it more observance and courtesy of manner, and a higher estimate of the general character of my Critique, than you have done, in that which you have already written.

My reason for this opinion is a firm belief, founded on its

general and obvious immaturity, that your review is a very hasty and careless performance; and that after having, more deliberately reflected on the subject, you would not again put your reputation at stake, by a work so far inferior to what you are able to produce. A remark or two more, and I shall be done with this topic.

I can hardly doubt your being somewhat startled, if not alarmed, at the formidable phalanx, against which you have indirectly waged war, by your inconsiderate attack on my "Physiology Vindicated." For, you must necessarily perceive that you are in actual conflict with every individual, whether reviewer or common author, who has either bestowed high commendation on my "Vindication," or assailed the notions of Liebig, on the same points, grounds, and principles, which I have assumed, and with nearly or quite the same facts and arguments that I have employed in that publication.

What further measures, in the controversy, either you or those individuals may adopt and pursue, I profess not to know; nor does it, at present, concern me to inquire. But this I know and openly declare. Were that able and distinguished corps of writers arrayed against me, in the contest, as they are against you, I should feel it due to myself, as well as to truth, either to fortify my position, by additional muniments, more solid and impregnable, than any you have yet thrown around yours—or retreat from it, as weak and untenable. And were I called on, as an umpire, in a case of the sort, such is the character of the decision I should urge. But my province, in the present discussion, is, to *establish* and *defend* true doctrines, rather than to offer counsel for their application and employment, as means toward an end.

Leaving you therefore for the present, unannoyed and uninfluenced by either advice or example, to the enjoyment of your own fancies, and to the execution of your own resolutions and measures, I shall pass to the consideration of other topics.

Having said more I fear than *you may think* the matter

worth, and perhaps much more than it *really is* worth to the public or to posterity, in defence of the ability of my Critique, as a work of intellect, I shall now submit to you a few remarks on some of your own views and speculations, on certain special points of science. And here, to make, if possible, some amends for antecedent prolixity, I shall endeavor to be brief. The more certainly therefore to compass my design, it is my purpose, instead of discussing and refuting all the errors you have piled on each other, in your review, like Ossa on Pelion, and mount Olympus on that, to merely *mention* a few of them, and reserve for analysis and *refutation* only one of the most gigantic of them.

In your remarks on hyperborean and tropical savages, you immerse yourself in one of the most extraordinary concoctions of inconsistency, error, and self-contradiction I have ever witnessed. And, in the commission of those faults in logic and science, you are always governed by the exigencies of your cases. Your errors I mean, are very skillfully dovetailed into your cases; so as to make of the matter a well-finished and symmetrical job.

In one crisis of their condition and requirement, your *northern* tribes take, during their intensely cold weather, severe exercise in the open air, that they may inhale a sufficiency of oxygen, to burn up the abundant carbon of their gluttonous meals—and, because *they* have but little carbon in their systems, your *tropical* people seek breezy shades and dwellings, calm repose, and cooling beverages.

But, by a touch on your magical curtain-wire, the scene changes, and all concomitants and requirements change along with it. The arctic man now crams himself with whale-blubber, and, instead of taking exercise in the open air, snores away his time, during the immense severity of the winter, in his air-tight and comfortable ice-hut—crowded by his family and associates, and filled with semi-stagnant air adulterated by the exhalation from their lungs and persons; and the tropical man exercises laboriously, in the midst of a highly heat-

ed atmosphere, and under the very path of an unclouded and fiery sun.

At one time your polar inhabitant, that he may be sufficiently supplied with fuel for his body-stove, cannot subsist except on animal food containing in its composition *eighty-hundredths* of carbon; and, at another, for the same reason, a portion of starch, or some other form of vegetable food, containing but *forty-four-hundredths* of carbon, is alike indispensable to him. In the former case, to become duly carbonized, he must swallow an immense quantity of carbon; and in the latter, for the same purpose, it is equally essential that he use food containing but little more than half the amount of that article!! And thus alternately, concomitantly, or consecutively, according to the veering wants of your hypothesis, (not of your savage tribes) its changing but ever-accommodating requirements, by some wizard influence, are brought to its aid. If these statements, or any others I may offer, be denied or contradicted, I am prepared to make them good *by an adduction of facts.*

Your notion that the temperature of infants is higher, under like circumstances, than that of adults, is so utterly groundless and improbable, that its being seriously entertained or even imagined by any observing and reflecting man, is positively astonishing. By every fact in nature that bears on it, its fallacy is demonstrated.

No less in opposition to reality is your misguided fancy that living trees have no inherent power to maintain, each its own appropriate temperature. To every one who has skilfully experimented and attentively observed on the subject, it is perfectly well known, that vegetables in general (*trees* not excepted) possess a *heat-regulating* power, as certainly, but not so strikingly as animals. And those who have neither observed nor experimented in the matter, as I positively believe is the case with yourself, have no just ground for any *real opinion* about it. All that such persons know, or rather *pretend* to know, in relation to it, is *supposition*, *hearsay*, or *unenlightened imagination.*

Under this head may be noticed your singular incredulity, no less singularly expressed, as to the heat-preserving property of living vegetable seeds. To *living wheat* this incredulity is expressly directed. For instruction on this point, allow me to refer you to any agriculturist of observation and intelligence in the country, who cultivates the wheat plant on a large scale. An individual thus prepared, will promptly assure you, that, if you shut up, in the winter season, in a close granary, a few hundred bushels of *dry* living wheat, *in bulk*, the temperature of the room will be maintained by it, several degrees above that of the atmosphere, in empty adjoining rooms, and of that out of doors. And such an individual has no theory on the subject either to establish or support. He deals only in facts.

It cannot be unknown to you that a certain degree of temperature is essential to the vitality of everything that lives. Sink the temperature below that degree, and the issue, in a given time, is *certain death*. It would be an anomaly then, in the wise and beneficent work of creation, were a *practical instinct*, acting, when necessary, toward the preservation of the requisite temperature, denied to any sort of living matter. Man, in this respect, holds his life, on the same principles, and by the same tenure, with the grass he treads on, and the wheat on which he subsists. To him a given temperature is indispensable to life; and he has a power to preserve it. Nor is a given temperature, I say, less essential to the herbage of the field, and the seed, from which it springs. Wherefore then should not they be endowed with a like power, as far as they need it for the purposes of existence, by the GREAT AND COMMON PARENT OF ALL? without whose notice, and agency through his laws, not a sparrow falls, a seed perishes, nor a leaflet withers. The *perfections of the Deity*, from all we know of them, resolve this question, and testify to the truth of the position I am maintaining. Consult on this topic the very tenets and principles of the religion you profess; and, if correctly interpreted, they will instruct you much more correctly and thoroughly than erring man can do. And their

instructions will be to the same effect with that which I have attempted to impart.

Of your remarks on the brain of a person starved to death, conceived and offered as they are in a spirit of apparent taunt and disrespect, I shall only say, that they are weak and vulnerable in every point. Though I may not dwell on them now, I am prepared to show, on any convenient occasion, that they have nothing of either force or ingenuity in them. On the contrary, they are as deficient in intellectual soundness and efficiency of matter and argument as they seemingly are in courteous observance and respectfulness of manner.

To my statement, made in my Critique, that, in many patients, whose respiration is greatly impeded and limited, by tubercular disease, and other lung and thoracic affections, the temperature is, notwithstanding, *highly febrile*, you calmly reply, as if with ex-cathedral authority, that, in such cases, "the breathing, though limited, is much *more frequent*" than in health—or than in other forms of disease, where the lungs are not deranged.

This reply from *you*, who have practised medicine for many years, amazes me. In direct contradiction of it, I could state to you scores of cases, which have fallen under my own observation, but shall content myself with one, which alone is all-sufficient for my purpose.

It is recorded, on the authority of Graves and Stokes of Dublin, and appears in the 5th volume of the Dublin Hospital Reports. It is also referred to in the American Journal of Medicine, vol. 8, year 1831, p. 218, and is as follows:

Each lobe of the lungs was extensively tuberculated; the pulse beat 126 times in a minute; and the temperature was *highly febrile*. Yet did the patient inspire but 14 times in a minute! Look into the book of nature, that portion of it, I mean, called the *sick-bed*, and many analogous cases, I say, will present themselves to you.

I shall only add, that the patient here referred to was an adult, whose healthy inspirations by the minute, were, we may presume, about 19. Reconcile this case with your hypothe-

sis, as best you may. And let it never be forgotten, that one *real* fact is as good as a thousand; because nature never contradicts herself.

Though the project is really too ludicrous to be treated seriously, I must not, on account of what I might, in every-day language, call the "*fun of the thing*" pass unnoticed your and Professor Liebig's scheme of manufacturing Esquimaux, Samoyedes, and other varieties of the Tartar race. It is to convert into hunters or fishermen, in a cold climate, Dutchmen, Frenchmen, Englishmen, or persons of any other diversity of the Caucasian family, making them go half-naked, to sharpen their appetites, and gorge them abundantly with whale-blubber, fat seal-meat, bear-meat or pork, and tallow candles, and furnish them, for their drink, with train-oil, or melted hog's lard—and the work is done.

Let them persevere in this course long enough (but you have not told us *how* long) and those who entered it, in the capacity of decent and temperate Caucasians, will come out of it, in appetite and habit, debased, gluttonous, and beastly Tartars. Instead of a pound and a half, or two pounds of animal, and a corresponding amount of vegetable food, each of them will now be able to eat and digest daily, and will have an appetite craving them, ten, fifteen, or even twenty pounds of whale-blubber, or of the fattest bear or hog meat, with a pound or two of tallow candles, and to drink a gallon or six quarts of train-oil or brandy, "without injury!!"

Such is the doctrine you must adopt and defend, or desert the banner and service of Liebig. And it is hard to say, which is most nauseous and difficult to be swallowed and digested—the German doctrine—or the Tartar meal!! I can master neither; and must therefore leave to men of more indomitable stomachs of mind as well as of body, less squeamish appetites, and more ostrich-like digestion, the tough, greasy, and repulsive concern!!

Could I condescend to an analysis of this narrative, *on physiologcal principles*, I could make such an exposure of it, as ought to make Professor Liebig, should the production ever

meet his eye, to *blush to his shoulder-blades*, at being either the author or the propagator of a *blunder* or a *fiction* (whichever it may be) so shamefully untrue. As well might he assert, that it is customary for the *headless trunks* of German criminals, when executed on the block, to spring from the platform, and join the headsman in a *waltz* or a *rigadoon!!*

Once more. Your narrative of my experiment, in the ignition of charcoal by nitric acid, appears much more of a home-stroke by you, than any other that you have dealt in the contest. But its successfulness is *only apparent.* Had you given faithfully the details of the experiment, its aspect and language would have been very different from those you have made it present and utter. But, like many other witnesses, whose memories are not trust-worthy, you have forgotten—certainly you have *omitted* the only fact in the case, of any real moment in the present discussion. I allude to the *temperature* of the acid and charcoal, which I used on the occasion. And be assured, as I have *always stated*, that it was *far above* that of the warmest of warm-blood animals, and still much further above that of cold-blooded ones. As far as my memory now serves me, it was at about 150° of Fahrenheit. Yet have you asserted (Western Journal, Dec. No., p. 459) that the experiment was performed by me, and "carbonic acid" produced "out of the animal body, at a temperature *by many degrees lower*" than that of warm-blood ed—and virtually indeed also of *cold-blooded* animals. For, in the passage of my Critique, on which you were commenting, I specially referred to the *latter class* of animals, as well as to the *former.* I do not assert that cold charcoal cannot be ignited by cold nitric acid. But I do assert that I never saw it done—though I have often both made and witnessed the trial. And I further assert, that when the articles were cold, or even *cool*, the late Professor Woodhouse always failed to ignite the coal, but usually, I believe *uniformly* succeeded, when they were hot. To yourself and your readers I commit this narrative without annotation. It is its own most clear and significant annotator. And it emphatically

proclaims, that, though your narrative of the experiment meets exactly the requisition of your hypothesis, it very unaccountably fails to notice *the most important feature of the case.*

On the most signal, as well as the most important of your failures, I shall now submit to you the remarks, with which I design to close this letter, protracted already far beyond the limits originally assigned to it. My allusion is to your attempt, very confidently made, to explain, on chemical principles, the result of the long and far-famed experiments, performed in London, toward the close of the last century, by Messrs. Fordyce, Banks, and Blagden. Nor is my design to speak either too strongly or too disparagingly of that attempt, when I say, that I perceive in it, from beginning to end, but little, if any thing else, than what I am compelled to regard as an unbroken tissue of errors and mistakes—fallacies and failures. That this estimate of your effort may be the more clearly seen to rest on substantial ground, and to be sustained by indubitable testimony, I shall first state the leading facts of the case, as succinctly and clearly as possible, and then offer on them a brief and, I think, an unprejudiced and fairly-conducted comment.

This however must be done at a subsequent period; and in the mean time I submit to your consideration the following observations.

If I understand his doctrine correctly, the chemico-physiologist contends, that the production of animal temperature is always and *necessarily* accompanied by a simultaneous production of carbonic acid—and that the two processes and their products are equal to each other in amount—if the temperature be high, the acid is abundant—and the converse.

Let the truth of this doctrine be tested by the case of an incubated egg. After vital action has fairly commenced in that body, vital heat is known to be evolved in it. In proof of this, let two eggs, one of them living and the other dead, be incubated, in the same nest, by the same hen. While the animal sits on them, and communicates to them the heat of

her body, their temperature is the same. But, the weather being cool, let her be removed from them, for an hour, or even less, and the temperature of the sound and living egg becomes the highest.

Of this change the reason is plain. A never-failing effect of vital action is the production of vital temperature. But, during the absence of the hen, vital action in the living egg continues. So therefore does the evolution of vital heat. But the dead egg, having within it, as a source of temperature, no vital action, loses the heat it had received from the hen, and becomes cool.

What is the fact however (I ask for information) as respects the production of carbonic acid? The question is put to the chemico-physiologist, who ought to be prepared to render an answer, his hypothesis being vitally concerned in the issue. Is either carbonic acid or water, or both, actually formed in the living incubated egg? If so, what are the evidences of the fact? Is the acid alone, the water alone, or a mixture of the two found within the egg, in the *folliculus aeris*, or elsewhere? Or do they escape through the pores of the shell? And are they detected without that covering?

These questions the chemico-vitalist ought to be able to answer, on the authority of experiment. And to me, an answer, thus sanctioned, whether it be *affirmative* or *negative*, will be gratifying—because I am in quest of sound knouwledge—not of conjecture or supposition—nor of mere victory in discussion.

I do not say that carbonic acid and water are not formed in the incubated egg. Do you, in behalf of chemico-vitality know and assert that they are? I need hardly add, that, in case neither of them be formed, the issue, as far as a single instance may avail, is in direct opposition to the hypothesis you maintain. Again.

During cold weather, take two eggs, one of them fresh and living, and the other stale and dead. Expose them, by the side of each other, to the same atmosphere; and, having

suffered them to lie there for an hour, break them, and ascertain the temperature of their contents.

In this experiment, you will find the living egg to be perceptibly the warmest. Possibly the contents of the dead egg may be frozen, and its shell ruptured; while those of the living one are unchanged.

In this case, is any carbonic acid formed by the living egg? The question, being one involving science, is worthy of a direct answer, deduced from experiment. And I trust the answer will not be withheld. It ought, moreover, to be rendered by Professor Liebig, or some of his adherents, to whose hypothesis of animal temperature it specially pertains.

June, 1844.

ART. II.—*On the use of Stramonium in Laryngismus Stridulus.* By Dr. J. P. EPPERSON, of Pulaski, Tenn.

The father of the children whose cases are the subject of this communication, is a stout, healthy negro man, about 35 years old. The mother is a large and likely mulatto woman, about 28 years of age. From the age of eight years, till puberty she was affected with violent and obstinate spells of sciatica, and was treated at the latter age, by large doses of stramonium, I judge from the described effects of the medicine used, and from some knowledge of the practice of the physician who attended her; but this I cannot certainly ascertain because the physician referred to died several years ago. Whether this woman's disease or the treatment of it had any influence on her children, cannot be known, but I state the fact, because I have had a vague conjecture that the treatment referred to may have had some effect on the offspring.

This woman has had nine children. The first child was healthy and remains so. The last is healthy yet, and is now

several months old. But all the seven children between the first and last, were subject to spasmodic croup. They all appeared well for sometime after birth, until they were attacked with the disease, which occurred about the seventh week in two, and from the sixth to the eighth month of their age in the other five.

They were usually attacked suddenly, with great difficulty of breathing, amounting to impending suffocation, attended with a peculiar loud crowing sound, resembling that heard in pertussis. The paroxysms were usually excited by fright, an attempt to cry, an effort to swallow, or waking from sleep, and lasted from a few seconds to a few minutes only, and returned frequently during the twenty-four hours. But in the intervals the patients were well and lively. When the disease had continued thus for a short time, symptoms of general spasms appeared, such as strabismus, convulsive contractions of the fingers and toes, particularly contraction of the thumbs upon the palms of the hands, and of the great toes towards the bottoms of the feet. These symptoms though continuous were increased by the paroxysms. Occasionally there were slight spasms of the legs and arms.

The first three of the seven cases terminated fatally in the 12th or 15th month after birth, before I became acquainted with the family. They were treated, I understand, by laxatives, alterants, and warm baths. I prescribed for the other four cases, and they all recovered in their second year, and are now healthy children. My mode of treatment was this: in addition to the treatment mentioned above, I gave from a quarter of a grain to a grain, according to age and other circumstances, of the extract of stramonium, three times a day until its peculiar effects on the system were decidedly manifested, at which time the paroxysms of the disease ceased in every case, and did not return for several days afterwards. Whenever they did recur the medicine was resumed, and continued as before, until they again disappeared. This alternation of the exhibition, and the discontinuance of the remedy was pursued through the whole course of every case.

I found that the disease gradually gave way under it, but that the *fits* were induced by any strongly exciting cause during the whole period of dentition. At one time, having none of the stramonium, I gave, instead, about the same doses of the extract of belladonna, but with no apparent benefit.

These circumstances attending the cases make the beneficial effects of stramonium very evident:

1st. The seven cases were in successive children of the same parents, and therefore more likely to have been similar in all respects than if they had belonged to different families.

2d. The striking fact that in the first three cases, without the remedy all died, and that in the next four, with the remedy all recovered.

3d. The obvious fact noticed at different times in each successful case, that whenever the specific effects of the medicine were manifested the paroxysms ceased, and did not return for sometime after it was discontinued. This was so obvious that the attendant quit all auxiliary means of treatment, confident that she could control the disease by stramonium alone.

Pathology.—The subjects of the three fatal cases were not examined *post-mortem;* and if they had been examined it is doubtful whether any light would have been thrown on the nature of the disease.

In the four cases which I saw the same symptoms were present which induced Cheyne and others to refer them to lesion of the brain. But there were no visibly enlarged glands, or other mechanical obstructions of the air-tubes; causes to which some physicians have ascribed the symptoms of the disease. I think the best that can be said in relation to the pathology of the malady, outside of extensive post-mortem observations, is, that it consists in a peculiar irritation of the nervous system, originating either in the brain, or in the nerves themselves, and manifested more particularly in the glottis, becase that part is endowed with more sensibility.

And, owing to the smallness and importance of that aperture, some degree of irritation which might be innocent in other parts of the system, is fatal in it.

Pulaski, May, 29, 1844.

ART. III.—*Extensive Disease of the Gums and Alveoli, from a decayed tooth.* By SAMUEL GRIFFITH, Surgeon Dentist, of Louisville, Ky.

Mr. B., of Barnwell C. H., Barnwell district, South Carolina, consulted me, in June, 1831, on account of a disease of the alveolar processes of the lower jaw, of five years standing. The patient was in a most wretched condition. He carried the head on the left shoulder, the right side of the neck being so much swollen as to be on a level with the point of the right shoulder. On carrying the finger into the mouth, which required considerable force, I found the teeth covered with a thick coating of brown tartar, the gums in a high state of inflammation, spongy, and bleeding on the slightest touch. The only tooth that had any appearance of decay was the first molar on the left side, and it was in this that the disease had commenced. From this point, to the *dens sapientiæ*, of the right side, purulent matter issued freely from around the necks of all the teeth. Sounding the last named tooth produced a sensation in the patient like that of an electric shock. Pieces of the alveolar arch had exfoliated, and beneath the right wisdom tooth was a portion of the jawbone partially detached; it was an inch and a quarter long, and about a quarter of an inch thick, partly porous and cellular, partly solid. The immense swelling of the neck did not contain any matter, but seemed to depend mainly upon inflammation of the glands and cellular tissue.

The disease, as I learned from the patient and his physician, was of five years duration, having resisted all the efforts of the best medical talent in the country. An immense

amount of matter had been discharged during this time, and from having been a stout, athletic man, Mr. B. was reduced to an extreme degree of feebleness.

June 15. I began the treatment by extracting the wisdom tooth of the right side,* and removing as much of the tartar as could be reached conveniently. This operation was extremely painful, and had to be desisted from very soon. I prescribed a mild astringent wash for the mouth, to be used frequently, and gentle cathartics to keep the bowels open.

June 23. I saw Mr. B. again. The swelling of the neck had very much diminished, the head was more erect, the mouth could be opened more easily, and there was less inflammation of the gums. I cleansed the teeth still further, and removed three pieces of bone from the alveolar arch. Continued the wash for the mouth, a little stronger than at first, and directed the cathartics as before.

July 2. Mr. B. called on me again. Swelling of the neck and inflammation of the mouth quite gone, and the head nearly erect. This time I succeeded in removing all the tartar. I took away, also, three more pieces of the alveolar arch, and large pieces of the bone described above. Medicines continued as before.

July 12. Saw Mr. B.; he was perfectly restored, head erect, and mouth healthy. I saw him frequently afterwards, and he informed me he had never suffered any since his mouth first healed.

June, 1844.

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* This appeared perfectly healthy after extraction. Upon splitting it open, however, the cavity was filled with purulent matter, and the nerve and lining membrane were quite destroyed.

REVIEWS.

Art. IV.—*Outlines of Pathology and Practice of Medicine.* By William Pulteney Alison, M.D., F.R.S., Fellow and late President of the Royal College of Physicians, Edinburgh; Professor of the Practice of Medicine in the University of Edinburgh, &c., &c. Philadelphia: Lea & Blanchard. 1844. pp. 424. 8vo.

Some months since we had the pleasure of introducing to the attention of our readers a work on the Principles of Medicine by Dr. Williams, and through the politeness of the publishers we are able to present an early account of the treatise of Dr. Alison on the same subject. These works, though professedly treating of the same general topics, and characterized each by uncommon excellence, yet differ so materially in their arrangement, and the style in which the views of their authors are carried out, that they may be read in immediate succession without any feeling of weariness from repetition. They do not cover the same ground, and are in no respect rivals, and hence neither may be expected to supersede the other. The work of Alison evinces greater discipline of mind, and, perhaps, would be styled the more finished treatise of the two; but that of Williams has more freshness about it, a greater leaning towards the discoveries of chemistry and the microscope, and on that account may be taken up with advantage at the point where the inquiry of Alison

leaves off. The two works agree in insisting on the need of *principles in medicine*, concerning which Dr. Alison thus expresses himself: "notwithstanding all that has been said, and may be said, against medical speculation, I am fully convinced of the truth of the observation of Dr. Cullen, that 'at all times the practice of medicine has been and still is, with every person, founded more or less upon certain principles established by reasoning.'" Thoroughly persuaded of the truth of this observation, it is with sincere pleasure that we hail the appearance of every new treatise in which these principles are clearly and ably exhibited. Every such work is a benefaction for which all enlightened physicians will be ready to give thanks and honor to the author.

Such a work, we have said, is the one the title of which is prefixed to this article. The author of it is one of the most experienced of European physicians. He long held the chair of the Institutes in the school in which he now holds that of the Practice of Medicine, and thus he brought to the task an amount of training which, aided by a familiarity with disease at the bed-side, could not fail to impress upon his Outlines a character of the most substantial usefulness. The term is, perhaps, somewhat vague, but we cannot think of one which better expresses our idea of the distinguishing features of this work, than to say that it is eminently philosophical. It presents a clear outline of the philosophy of medicine, avoiding the extreme of speculation, on one hand, and on the other that mere jumble of cases which, whatever may be their value as a series of ascertained facts, cannot lay claims to being anything higher than a rational empiricism. The principles laid down in it have their foundation in facts which have been carefully observed, and the facts are so connected by principle as to give to them not the semblance merely but the reality of genuine science.

Having said thus much in commendation of the work, we proceed to quote such passages as we marked in a careful perusal of it from which we have just risen, by which, we feel very confident, our good opinion will be admitted by our

readers to be fully sustained. Anything like a complete analysis of a work from which details have been so far excluded, it is quite plain, would be out of the question in the limits of one article. We shall, therefore, make up our notice chiefly of of such extracts as struck us while reading the volume as most likely to interest practitioners of medicine.

The work is divided into three parts, of which the first treats of cases of sudden and violent death; of diseases in general, their fatal terminations or spontaneous decline; of the remote causes of disease, and the means of their prevention; and of the action of the remedies in general, and the evidence of their efficacy. Part 2d treats of febrile diseases, embracing all inflammations; and part 3d considers chronic or non-febrile diseases in general, including those of the heart, lungs, stomach, organs of generation, and nervous system. "The object of Pathology," says the author, "is to describe and explain all the phenomena by which the diseased states of the living body differ from the healthy; and we call states of the living body diseased, in which there are such deviations from its natural condition as cause suffering or inconvenience, or endanger life." The subject being thus defined, he proceeds with a very scientific account of the causes leading to sudden death, which he declares to be such as *directly depress* or *suspend the vital action of the organs of circulation*, or else *obstruct the arterialization of the blood*, and therefore, according to principles known in physiology, *arrest the circulation at the lungs*." From which short quotations the reader will perceive, that the volume before us, while it is marked by a clearness of thought and precision of language most delightful to the student, is one which is not to be understood without study. We make a few extracts from part I.

The following paragraph bears favorably upon organic chemistry. Some might reject it as having a squinting towards the humoral pathology. It nevertheless conveys an instructive truth. It runs thus:

"In the case of certain local diseases, particularly of the liver and kidneys, a very peculiar mode of fatal termination is sometimes observed, in consequence of the local disease leading to retention of the natural excretions, and thereby affecting the system as a narcotic poison. And it is also certain, that death from any of the strictly febrile diseases, and from certain of the inflammations which we term specific, is owing, in part, sometimes almost entirely, to the influence of causes which affect peculiarly the fluids of the body, without altering the structure of any of its solid parts, and produce changes analogous in the most important respects to the agency of poisons on the animal economy."

In reference to the tendency of most diseases to a favorable termination, he has the following remarks:

"Another provision by which the injury done to individual parts of the body, both by inflammation and other diseases, is obviated in various cases, is the obstruction to the circulation through them, and the increased flow to, and increased development of, neighboring or corresponding parts, by which the place of the injured organ is supplied.

"The state of hypertrophy into which the heart and other muscular organs are brought, by the existence of any cause which obstructs the result of their natural action, is another provision by which the injurious effects of very common diseases are lessened or retarded. And we are by no means entitled to set aside the supposition of many pathologists, that the state which we call febrile reaction, is a provision by which the organs of circulation are excited to resist the noxious effects of causes which would otherwise irretrievably depress their action, in like manner as the state of hypertrophy is that, in which the heart permanently reacts against causes which would otherwise arrest the flow of blood."

Among the remote causes of disease he includes plethora as one. He says:

"Those whose knowledge of diseases is chiefly taken from examinations after death, as they generally find sufficient lesions of individual organs to explain the symtoms and event, see little of the evidence which establishes the importance of general and local plethora as a cause of disease; but those who are accustomed to trace the whole progress of individu-

al cases, and observe the effects of remedies and regimen on them, have ample grounds for the belief that plethora, general and partial, is one of the most frequent, and often the most remediable, of the causes to which attacks, and still more frequently recurrences, of various local diseases, whether inflammatory, hæmorrhagic, or more chronic, may be traced."

In our next quotation the author takes a step very much in advance of those physiologists who deny that medicines ever reach the circulation. His speculation has at least ingenuity to recommend it. Speaking of the *modus operandi* of medicines, he remarks as follows:

"It is obvious that the great desideratum in therapeutics at present is, to establish the laws according to which the vital affinities of the minute particles of the blood and the living solids may be altered by the agency of remedies; and that when this is done, most of the remedies which we now describe, somewhat vaguely, as stimulating secretions, excretions, absorption, &c., or even as specifics, will be regarded as acting primarily on the blood, and on the vital changes which are continually going on in its substance, and which are essential to its healthy constitution."

The account given by our author of inflammation is as satisfactory as it could be made in the present state of our knowledge. Inflammation, he holds, depends upon *vital* and not mechanical causes. It is not a mere obstruction in the flow of the blood, as taught by some, nor does the relaxation of the vessels which attends it fully explain the phenomena. The author sums up in the following manner:

"We are thus led, by ascertained facts, and, as we believe, irresistible inferences from these, to the conclusion, that inflammation and its effects are inexplicable by any alteration of the contractile power of the living solids concerned in it; and necessarily imply an alteration of vital properties, by which the constitution of the blood, its relations to the surrounding textures, and its movement through them, are determined, but which are quite distinct from any contractions of living solids. That such living properties exist, that they effect the changes taking place at *insensible distances* among

the particles of the blood, and that they are altered in inflammation, will hardly be denied by any pathologist. That they are capable of affecting the *visible* motion of the blood, will appear a rash assertion only to those who have not accustomed themselves to consider the evidence by which it is supported.

"From all these facts we think ourselves justified in inferring, that inflammation consists essentially in a local increase of a vital property of attraction existing among the particles of the blood, and between them and the surrounding textures, and with which other vital properties are connected, and simultaneously excited. That the proximate cause of inflammation, although affecting the constitution of the blood, does not reside in the blood only, but primarily in the agency on the blood of the solids through which it passes in the capillary vessels, appears clearly from the limitation of the disease, to a certain locality in the body, from the fact of its easy reproduction, for a long time, or for life, in the vessels which have once been the seat of it,—and from other facts to be mentioned as to inflammatory effusions. In the blood itself, the increased attraction seems to take place, both among the particles of the fibrin which, in union with the serum, constitute the liquor sanguinis in the living vessels, and in those particles of nearly similar matter, which constitute the bodies of the globules; the increased aggregation of both, and increasing number of the former, being characteristic of inflamed blood."

Concerning the use of pus Dr. Alison expresses the following opinion:

"Mr. Hunter puts the question, 'what is the use of the secretion of pus?' and confesses himself unable to answer it. We may approximate, at least, to an answer by observing, that all living action, without exception, is probably attended with diminution or loss of vitality in the acting particles, and thereby ultimately leads to the formation of fluids, which, if retained in the living body, act as poisons. The locally increased and altered living action of inflammation, when of a certain duration, and in a certain lower grade of intensity, or at a certain distance from the living influence of the existing solid, is subjected to the same law, and can only terminate favorably by the expulsion of the excretion which is thus formed. We shall afterwards see, that it is at all events a fact, that, whenever purulent matter is directly mixed with

the blood, it acts on the system as a poison; and that its very rapid formation is characteristic of a specific form of inflammation, attended with depression of vital power."

In the section which treats of the modes of fatal termination of inflammatory diseases, we find the following instructive observations:

"Inflammation is sometimes quickly fatal, independently of any alteration in the texture of the inflamed part, simply by the gradual depression of the powers of the circulation which attends it, and which may be called a strictly sympathetic effect. The case of inflammation of the peritoneum is the best example of this danger. The effects of this inflammation, perceptible on dissection, bear no fixed proportion to the intensity or rapidity of the symptoms; and the disorganization which is found, effusion of serum, of lymph, or of pus, thickening of the membrane, even gangrene of the membrane (which is more rarely found), although they may explain torpor of the intestines, afford no explanation of the gradual but rapid depression and ultimate extinction of the heart's action, and consequent coldness of the surface, otherwise than by reference to the principle already explained, that any violent injury of the abdomen, by virtue probably of the intense and peculiar sensation it excites, acts as a powerful sedative on the heart.

"It is in this manner almost exclusively that inflammation of this part produces death, and it affords the best example of death beginning at the heart, and uncomplicated with simultaneous affection of the brain, which occurs in any disease."

A case strikingly illustrative of the truth of the above remarks occurred in our practice during the last autumn. A negro woman in excellent health, was brought to bed with her second child, and in four weeks was so well that she resumed her business as cook for a large family. The evening after commencing this work, she experienced some chilliness, which was followed by pain in the pelvic region, and a bad night. Next morning the pain had become severe, but the family not regarding the case as anything more than one of colic prescribed some simple remedies and it was suffered

to take its course. The following night was one of much suffering, and very early the next morning the patient was discovered to be laboring under a severe chill. We saw her at 8 o'clock, at which time she appeared to be in a state of collapse—with cold surface and extremities, small, thready pulse; short, laborious breathing; complaining, when aroused, of pain low down in the abdomen. Efforts were made to excite reaction by wine, ammonia, sinapisms, hot applications and blisters, but the fatal symptoms advanced, and she died in an hour after we first saw her. A *post-mortem* examination was made in the afternoon, by which extensive inflammation of the peritoneum was revealed. The substance of the uterus and its appendages, as well as its peritoneal covering were inflamed. A pint of serum was found in the pelvis containing shreds of lymph. In this case death followed in less than forty hours the first symptoms of peritonitis. What might have been done by the proper treatment in the first few hours of the disease, it is impossible to say. According to our author:

"No proposition in medical science is more certain, and certainly no one is more practically important, than that which regards the power of large and repeated blood-letting to arrest the progress of inflammation in its early state, before any great amount of effusion has taken place,—and to cause many cases of it to terminate favorably by resolution, with such slight effusion only as is afterwards easily absorbed; which would otherwise have gone on to extensive and probably fatal disorganization of the different kinds above mentioned. Indeed, it has been stated, and probably with truth, in relation to healthy inflammation occurring in a sound constitution, and unattended with mechanical injury to the parts concerned, that "every constitution which is capable of having such inflammation excited in it, is capable also of bearing the evacuations, chiefly of blood, by which that inflammation may be subdued."*

This remark applies only to inflammations of a general

* Bateman.

character, or, as styled, "healthy inflammation," and is not true of those which are specific in their nature. Of the latter class Alison mentions three varieties—the *rheumatic*, the *gouty*, and the *syphilitic*. In regard to these he says:

"That inflammation may exist of a nature not to be subdued, even to be aggravated, by blood-letting or other evacuations, is quite certain from such experiments as those of Magendie as to the eye, and Gendrin as to the stomach; in which the kind of inflammation of the mucous membrane formerly mentioned was brought on by inanition, and could only be relieved by fuller nourishment, restoring the strength of the circulation, and probably restoring to the mucous membrane its natural protecting mucus; and that the kind of inflammation which is recognized in a patient affords very often a reasonable ground of objection to full blood-letting is sufficiently obvious when we attend to the known history of scrofulous, rheumatic, and gouty inflammation. In the first of these, it is true, that, on occasion of a recent inflammatory attack, when the symptoms approach most nearly to those of healthy inflammation, we have every reason to believe that blood-letting is often of the most essential importance, preventing aggravation of disease already existing, or arresting disease which would otherwise be established. But scrofulous inflammation is less under the influence of blood-letting than healthy inflammation; and scrofulous diseases occur chiefly in weakly persons, in those whose mode of life in early youth has been debilitating, and in those recently weakened by any considerable evacuations. Therefore, by full and repeated blood-letting in scrofulous cases, while we make little impression on the inflammation that exists, we incur a great risk of so far lowering the constitution as to make it more liable than previously to fresh attacks of inflammation, or to other scrofulous diseases, perhaps not inflammatory in their origin."

Of opium as an auxiliary to venesection in certain inflammatory diseases our author thus judiciously remarks:

"That opium is an important and valuable auxiliary to blood-letting in abdominal inflammation, is a principle which seems firmly established by the practice of various physicians in this country. It appears that its value (except as a palliative to uneasy feelings) is nearly confined to the inflammations of the intestines, enteritis, and dysentery, and that it is impor-

tant in them, not to diminish the quantity of blood which should be drawn to subdue the inflammation, but to relieve those very oppressive sensations which seem to be the connecting link between the inflammation in the intestines and the actions of the heart, and by which these actions are so often rapidly and irretrievably depressed. Under the full use of opium, after bleeding in these diseases, these feelings are often relieved, vomiting allayed, sleep procured, (whether with or without sweating does not appear to be material), and the pulse is found to rise in strength; and if, as very generally happens in well-marked cases, the inflammatory symptoms recur, blood-letting may be repeated again and again, without symptoms of sinking. The disease is placed, as to its possible duration, and the effects of repeated blood-letting, more on a footing with inflammations of other parts, than it is when this auxiliary is omitted. Under this treatment, it may be stated with confidence, that the success of treatment in these inflammations, when attended by the peculiar depression of the circulation, and when the inflammation is of the healthy character, as distinguished from the erythematic and often epidemic peritonitis, is very considerably greater than when opium is withheld."

Bronchitis, of which our author observes, that in its simplest and mildest form, it is the most frequent inflammatory disease produced by exposure to cold or wet, becomes in one shape an exceedingly formidable affection. In regard to that he remarks as follows:

"In such cases of violent bronchitis, the diagnosis from peripneumony, with or without pleurisy, becomes important, and is generally marked pretty distinctly by the absence of pain on either side, or of any stain of blood in the sputa, by the sonorous respiration, and the bronchial râles, heard chiefly on expiration, and pretty uniformly on both sides of the chest, and by the expansion of both sides on inspiration, and the sound on percussion in both, continuing natural. The diagnosis is remarkably aided, likewise, by the frequent exacerbations and remissions of the dyspnœa, the former of which, in the cases where there is most of the spasm, take place chiefly in the morning after sleep,—in those where inflammation predominates, chiefly in the evenings,—the remissions being generally marked by free expectoration."

In the next quotation, which we shall introduce from the same chapter, we have an explanation of that shortness of breath with which many old persons are troubled. The extract in a pathological point of view is highly interesting.

"The repeated recurrence of the disease, especially with asthmatic paroxysms, leads to the state called emphysema pulmonum, in which the septa of many of the minute air-cells are broken down, and they coalesce into large irregular cavities,—air escapes into the cellular substance immediately beneath the pleura, and sometimes forms bullæ on its surface,—and the whole lung becomes more voluminous, of lower specific gravity, and, by reason of the enlargement of the cells, approximates to the structure of the lungs of reptiles; and is rendered unfit for the rapidity of mutual action of the air and blood which is requisite in warm-blooded animals, at least under any excitement of the circulation. This state, therefore, necessarily implies habitual shortness of breath; and is very often indicated, as an accompaniment and result of habitual bronchitis and asthma, by the unnaturally arched and very resonant chest, with faintness of the natural respiratory murmur, and constant admixture of bronchial râles, chiefly in expiration. A certain degree of this change of the lungs, as Dr. Lombard has shown, takes place very frequently, and apparently from slight causes, in advanced life, when the texture of the lungs, particularly towards their external surface, becomes comparatively bloodless and brittle; but in younger persons it probably takes place only as a consequence of the bronchial inflammations connected with spasms,—*i. e.* asthma and hooping-cough,—and in such subjects no doubt admits of spontaneous cure, when recurrence of the inflammation is prevented."

Having urged the necessity of free depletion in peripneumony, the blood-letting to be large and continued until the breathing is distinctly relieved, and to be repeated sometimes four or six times, or even oftener, he goes on to remark:

"In many cases in the latter stages, when the active inflammation has subsided, the expectoration is promoted, and the strength and general feelings of the patient are benefited by the use of small quantities of stimuli, particularly wine

and the preparation of ammonia; and in a few cases, neglected in the commencement, and where the symptoms of the advanced stage (frequent and soft pulse, dyspnœa, general mucous râles, and sputa deeply and darkly stained) are urgent, recoveries take place under the use of such stimulating remedies exclusively,—the inflammation having subsided spontaneously without extending over much of the lung."

In this connexion, the author alludes to two peculiar forms of pneumonia which from the nature of the case are generally fatal. The first, which is characterized by partial suppuration in the lungs, is to be apprehended, "when symptoms of peripneumony supervene on those of inflamed veins, or after small-pox, or more especially after the amputation of a suppurating surface, when it may be concluded that purulent matter is circulating in large quantities in the blood." The second is observed in cases where the pneumonic inflammation is complicated with some disease producing a feeble state of the circulation, and is denoted with certainty by the smell of the breath. Under the cautious use of stimulants Dr. A. thinks recoveries have taken place from the advanced stage of affections of both these kinds, but in such cases there is reason to believe the disease was more partial than usual.

It is not now so much the fashion as it was a few years since, to refer diseases of every sort to inflammation or congestion of the liver; but doubtless derangement of that organ is the *fons et origo* of many of the maladies which pass under the term bilious. Our author refers in the subjoined passage to an obscure inflammation of the substance of that organ:

"In such cases there are often various dyspeptic symptoms attending the disease of the liver; sometimes much vomiting, in other cases none,—sometimes complete anorexia, in other cases a morbidly keen appetite; often dryness of the tongue, and a very peculiar fetor of the breath; and usually either a defect or a morbid quality of bile in the stools; frequently there is discharge of blood by stool,—occasionally by vomiting; but in some instances we can hardly point out any other attendants than gradually increasing debility and emaciation, usually with a sallow complexion."

Under the same head he has the following observations:

"Enlargements of the spleen frequently coexist with those of the liver, particularly in those who have suffered with intermittent fevers; or exist alone, sometimes for a great length of time. They are often connected with repeated fits of hæmatemesis. In these cases, the most important practical observation is, that preparations of mercury are very apt to effect the system violently and injuriously; and that blisters, and frequently repeated laxatives, combined with bitters and preparations of iron, have seemed the most useful remedies."

It has already been mentioned that the author considers the inflammation of rheumatism as specific. In accordance with that view of the disease, he condemns active depleting remedies. His language is:

"The acute rheumatism cannot, probably, be much shortened in its duration by antiphlogistic remedies, and if it were so shortened in external parts, we have good reason to think that the risk of affection of the heart would be greatly increased. For although the translation to the heart has been observed to take place under all modes of treatment of the disease, yet it has been seen to follow large bleeding, and immediately consequent recession of the inflammation on the extremities, often enough and quickly enough to justify much apprehension of such a result, when the quantity of blood taken is so great as to produce a marked and immediate effect on the heart's action."

In chronic rheumatism of all the numerous remedies that have been used, the hydriodate of potass is the one most in vogue at the present time. We are acquainted with a gentlemen in whose case the medicine acts like a charm. We knew another gentleman, some years ago, who derived pretty certain relief from the use of the blue pill.

We will conclude this notice by a few extracts from part III. of this admirable work. This treats of *chronic or non-febrile diseases.* In these appear the following kinds of morbid structure; namely, *hypertrophy, atrophy, softening, hardening*, and various morbid growths: these are examples of *structu-*

ral disease. The *functional* diseases belonging to this class are numerous, and need not be recited. Among the causes leading to these complaints, our author regards a morbid change in the constitution of the blood, which may be brought about by the following agencies:

"1. By improper aliments, either defective in quality, or excessive, or unfitted for due assimilation.

"2. By truly poisonous matters (*e. g.* alcohol) introduced from without with the aliments, or by the lungs.

"3. By poisonous matters formed and retained in the body itself, though destined for excretion.

"4. By a defective or altered condition of those secretions which are immediately concerned in the assimilation of food.

"5. By a defective or altered state of other vital actions requisite for the assimilation of aliments, particularly of respiration, as affected by the quality of the air breathed, and of circulation, as excited by the natural stimulus of exercise.

"6. By other causes of excessive or deficient quantity of blood in individual parts, besides the nature or due preparation of the ingesta, *e. g.* such causes of local plethora as are stated above (p. 14), or such causes of locally defective circulation, as previously diseased or obstructed arteries.

"7. By causes, not yet understood, acting in individual parts of the body, and altering the constitution of the blood there in the first instance, which alteration is subsequently extended; as in inflammation, in tubercles, cancer, &c.

"8. By causes not yet understood, but which affect the vital properties of the whole blood, as is seen in cases of purpura or the hæmorrhagic diathesis.

"In all these cases it is a vital, not a simply chemical action, which is originally in fault, although in several a chemical change in the constitution of the blood, or of some of the secretions, results from, and indicates that altered vital action."

To the above causes he adds the following:

"1. In childhood there is often a deficiency of exercise, of mental excitement, and of the tonic influence of frequent changes of temperature.

"2. In youth there is often over-excitement of the nervous

system by mental influences, combined with deficient exercise.

"3. Next, there is often intemperance of various kinds, affecting variously the function of digestion, the circulation, and the nervous system.

"4. In many there are too sedentary occupations, or only occasional and irregular muscular exertion, such as may excite disease rather than contribute to health.

"5. In many there is, as life advances, want of mental excitement and interest, along with want of exercise, especially in women.

"6. In others there is excessive exertion, mentally and bodily, deficiency of sleep, and mental anxiety.

"7. In many there is, independently of intemperance, repletion, and plethora from excess of food, and sometimes of sleep, and defect of exercise."

Dyspepsia has been styled the *Proteus of diseases*, assuming almost every shape. Instructive illustrations of this are given by our author in the annexed passage:

"All these forms of dyspepsia, although partly owing to known causes, suffer exacerbations for which we can assign no reason; and again, although often tedious, have the tendency to occasional spontaneous abatement. When unusually urgent, we suspect that they are connected with the subacute inflammation of the mucous membrane formerly considered; and when they last long, and are attended with much emaciation and weakness, we apprehend that they are connected with organic disease, either of the stomach itself, or of the viscera which adjoin it, or are connected in action with it in the modes formerly noticed.

"Even in youth, especially in young women, it is not uncommon to find the symptoms of dyspepsia—perhaps but slight—connected with ulcers on the mucous membrane of the stomach, which are preceded or attended with so little of the symptoms of inflammation, that they may be regarded as a form of chronic organic disease: and these may be suddenly fatal, either by erosion of a blood-vessel, and hæmorrhage, or (more frequently) by perforation of the coats, escape of the contents of the stomach, and rapid peritonitis.

"The other cases of organic disease of the stomach are most generally seated either at the cardia, or near the pylorus. In the former case, we have the pain and difficulty felt

on the morsel of food passing into the stomach, and after a time very generally partial *regurgitation* of food. In the latter case, we have the accession of pain at regular times—generally from two to three hours after food is taken, followed and relieved by the periodical vomiting; the matter vomited often becoming ultimately of the dark brown or blackish color. In the case, not uncommon, where the stomach becomes greatly distended and enlarged, the vomiting is not so frequent or regular, but is occasionally to an enormous extent. In both cases, but especially in the latter, we may have, after a time, a small firm tumor perceptible to the finger, and somewhat tender on pressure, at the seat of the disease; which, however, is sometimes considerably moved from its natural position. Such diseases of the stomach are generally attended with obstinate costiveness."

But, if we went on quoting all the passages in this book by which our attention was particularly struck, we should hardly stop until our article had grown to the size of the volume itself. We have already made it as long, perhaps, as an article made up so much of extracts ought to be, and shall therefore take our leave of the work by again recommending it most heartily to the profession. Y.

Art. V.—*The Cyclopædia of Practical Medicine.* Edited by John Forbes, M.D., F.R.S., Alex. Tweedie, M.D., F.R.S., and John Connolly, M.D. Revised, with additions, by Robley Dunglison, M.D. Parts II., III., and IV. Philadelphia: Lea & Blanchard. 1844.

In our last number we noticed the republication of this splendid work by Lea & Blanchard. We have since received three additional parts, an examination of which has confirmed us in our first impression, that as a work of reference for the practitioner—as a *cyclopædia of practical medicine*—it is admirably adapted to the wants of the American profession. In fact, it might advantageously find a place in the library of any gentleman, who has leisure and taste for look-

ing somewhat into the nature, causes, and cure of diseases. We copy from part IV., a portion of Dr. Dunglison's remarks on *Cholera Infantum*, not as one of the most elaborate and finished articles, for it follows the long article on Epidemic Cholera, to which it is in some degree an appendix, but because the disease is rife at this season of the year, and any suggestions in relation to it will be read at present with interest. Having stated that cholera infantum is generally regarded as peculiar to the United States, that it is not known in Paris, but is very similar to a complaint in England vulgarly called "*watery gripes*," Dr. Dunglison gives the diagnosis of the disease, and then proceeds to enumerate the causes, from which point our quotation begins:

"*Causes.*—Excessive heat is unquestionably concerned in the causation. It is, indeed, in the summer months that the disease prevails so fearfully and so fatally in our cities; yet something more than heat is required to induce it extensively; for, in the country situations it is comparatively rare. Atmospheric vitiation must be combined with atmospheric heat, and hence it prevails in the most crowded alleys of cities. In cleanly and well-ventilated districts, and in large, airy apartments, deaths from it are uncommon; so at the time when the bills of mortality indicate the greatest amount of deaths, physicians who practise extensively in the better portions of cities may see but little of it. Dr. Condie states that when it occurs in the country, it is almost exclusively in low, damp and otherwise unhealthy situations; but such has not been the result of the author's experience. Age affords a predisposition. The common idea is, that children are more liable to it in the second summer than in the first; but this does not seem to be confirmed by statistical observations. From the official reports of deaths in Philadelphia and New York, it would appear that, in the former city, of 229 deaths assigned to summer complaint, 142 occurred in children under one year of age; 75 in those from one to two years; and 12 in those from two to five years. It rarely occurs in infants under three months of age.

Under the predisposition induced by great atmospheric heat and vitiation, it is clear that improper aliment may be an exciting cause; hence, children brought up on spoon-meat suf-

fer in greater numbers than those that are nourished at the breast.

"In like manner, dentition may contribute to its production.

"*Pathological Characters.*—The mucous membrane of the bowels generally exhibits evidences of inflammation, especially of the follicles, which by some have been regarded as the primary seat of the disease. When it has existed for any time, increased redness, in points and patches, has been observed in different parts of the stomach and intestines; but attention has not generally been paid to distinguish whether these consist in simple hyperæmia or in inflammation of the lining membrane. The follicles are very generally enlarged, inflamed, and occasionally ulcerated; the enlargement, according to Dr. Homer, often resembling a sprinkling of white sand upon the surface of the mucous membrane. Occasionally, considerable portions of the digestive tube are so much contracted as scarcely to admit a small-sized quill; at other times, portions of the mucous membrane of the stomach and intestines are greatly softened. The liver is almost always enlarged. This has likewise been regarded as the primary affection; but it is more probably secondary. The encephalon, in nearly all cases, has been found in a state of hyperæmia, and in long protracted cases serous effusions have been met with in the ventricles, and at the surface of that viscus.

"*Treatment.*—The general principles of management do not differ materially from those laid down under enteritis of the mucous coat, and diarrhœa. The cases that occur in the airy parts of the town are usually managed with facility, and carried to a fortunate issue; whilst those in the narrow alleys of the worst parts too often resist every effort of the practitioner. It is all-important to remove the little sufferer from the air that has generated the disease, to another situation. This of itself is often enough to arrest the affection; but it may be necessary to combine with it a gentle laxative—as a small dose of calomel or of rhubarb and magnesia. Should the febrile action be considerable, it may be advisable to apply a few leeches to the epigastrium, more on account of the revulsion, than of benefit to be derived from the loss of blood—covering the abdomen after the leech-bites have ceased to bleed, with an emolient poultice. In other cases, especially where there is great irritability of the stomach, stimulating cataplasms or fomentations may be applied, and in protracted cases a blister. Should the disease not yield to the above treatment, small doses of the mild chloride of mercury may

be given frequently, to produce a new action. if the child be under two years of age, which, as has been seen, is usually the case. After this age, there is greater danger of inducing severe stomatitis. Should signs of acidity exist, magnesia in the early period, and prepared chalk subsequently, may be useful adjuncts. Hence, the hydrargyrum cum cretâ of the pharmacopœias is a convenient preparation. Where irritability of the stomach is present, which is not relieved by external revellents, injections of salt and water may be used in the way of revulsion; or gentle excitants may be given internally, as a drop or two of oil of aniseed in sugared water, or five or six drops of sulphuric ether in the same vehicle.

"It need scarcely be said, that should irritation from teething exist, the gums should be freely divided, and should even the tooth not be set at liberty, the revulsion, thus induced, may prove salutary. The warm bath is beneficial in all periods of the disease. In the more protracted cases, astringents become necessary. The acetate of lead has been highly extolled by many. The oil of turpentine has been advised when there is flatulent distention of the stomach and bowels; and with the same view, a few drops of any of the essential oils may be administered. Great caution must, however, be had in the use of both excitants and astringents. During the convalescence any of the milder tonic infusions may be prescribed.

"Throughout the disease, care must be taken in regard to the diet; and, where practicable, the child should be restricted to the mother's milk. Where this cannot be done, boiled milk and water, with any of the farinaceous preparations, as sago or arrowroot, may be used. By many, the infusion of benne-leaves or gum-water is given freely; but it may be questioned whether these mucilaginous substances are of much benefit; they may tend to shield and soothe the part with which they may come in contact, but they are difficult of digestion. The appetite is apt to be very capricious—a great desire being occasionally shown for salted meat, salt fish, butter, &c.; and it has been esteemed proper to gratify it occasionally to a certain extent. Doubtless, in many cases, no evil has resulted from such indulgence, but it must necessarily be hazardous. To allay the intense thirst, iced water may be allowed; or the infant may be permitted to suck ice contained in a piece of gauze.

"At all periods of the disease, one of the most important curative agents is change of air. If the child be removed into the country, this is the best course; but where this cannot

be accomplished, riding or carrying the child about in the open air is of essential service.

"In the way of prevention, removal during the summer heats to the country; or, if compelled to remain in town, sleeping on a mattrass, with the door and windows of the chamber open; the daily use of the tepid or cold bath; exercise in the open air, and, if the child be weaned, well-regulated diet, with especial abstinence from unripe fruits and the succulent vegetables. The constant use of a flannel bandage, even through the heat of summer, has appeared to the writer an important prophylactic."

If we were to propose any modification in Dr. Dunglison's method of treating cholera infantum, that which we should suggest would be that calomel should have a little greater prominence in it. Our experience is, that calomel is the only remedy which can be relied on in cholera infantum to check the watery discharges, and bring about healthy alvine dejections. Calomel rarely fails to do this, if persevered in, and often accomplishes it very speedily; but, unfortunately, the causes continuing to operate, in too many cases the disease returns again and again, and is not finally subdued until cold weather sets in. In the use of ice, and ice-water, which Dr. Dunglison, in other places more highly than here, recommends in this and its kindred affections, we heartily concur. We have very often witnessed the happiest effects, and never any but happy effects, from the practice. The relief to the little sufferer, in cases of gastric distress accompanied by fever, is so prompt and striking, that no one who has witnessed it will ever forget it. We might also speak of the advantages of the tepid, or cold-bath, where fever and inordinate thirst are present, in cases of which sort we have seen this remedy exert a most favorable influence. We will only add, that we have met with cases of this disease which were clearly complicated with intermittent fever. On observing such patients carefully, distinct febrile paroxysms are perceived, during which all the symptoms are very much aggravated. In such cases the sulphate of quinine is indicated. We have given it successfully in grain doses to children 18 months old,

two or three times during the morning, in anticipation of a chill. In solution, it is given to children with less difficulty than would be expected from its extreme bitterness. Blisters in infants are prone to run into mortification, of which we have seen melancholy instances. They are to be applied with extreme caution.

We close our notice with an extract from the article on constipation which we recommend to the careful study of the young practitioner:

"In the costiveness which depends upon mechanical obstruction of the fæces in their passage through the rectum, we have before observed that pains of a spasmodic nature in the course of the colon occur; and there is also often a sensation as if a cord was tightly tied around the abdomen. The great distension to which the colon is occasionally subjected from the accumulation of fæces, owing to the costiveness produced by the strictured state of the rectum, may explain these distressing feelings. The enormous extent to which the colon becomes dilated, in some instances, in consequence of this mechanical obstacle to its passing forward its contents, is truly astonishing. Its circumference, under such circumstances, has been found, throughout its whole course, equal to that of a stomach of the full size, and the muscular fibres and longitudinal bands proportionably increased in size.

"It is usually in cases where the costiveness has been in existence for a very long period that the colon is found so enormously distended, and when stricture of the rectum has proceeded gradually, and has at length arrived at so aggravated a state that scarcely any fæces can pass through the contracted part, that this dilated condition of the colon is most remarkably developed. The following case occurred some years ago at the Worcester Infirmary. The patient, Elizabeth Stockall, was for three or four years the victim of stricture in the lower part of the rectum, which was sufficiently near the sphincter ani to admit of her becoming relieved from time to time by dividing the stricture with a bistoury; and for two years the accumulated fæces arising from the costiveness were, as it became necessary, removed either by a division of the stricture, or by the use of glysters. She never complained of much pain down at the strictured part of the rectum, but very often in the direction of the sigmoid flexure of the colon. There was in this case so little contractile power in the rectum below the stricture, that the fæces passed by

little and little through the contracted part, and accumulated in large quantities in a pouch below the contraction, and it was necessary to wash this accumulation away by the repeated use of clysters. At length, the strictured part would no longer admit of the passage of any fæces, and stercoraceous vomiting took place, soon after which her existence terminated. On examination of the abdominal viscera, the first thing that claimed attention was the arch of the colon distended to the size of a large stomach, and completely concealing the small intestines. On further tracing the colon, the dilatation of it was found equally great from the cæcum to its termination in the rectum. The sigmoid flexure of the colon was displaced from its usual situation, and lay across from the left to the right iliac region. The rectum also, from its commencement to the strictured part, near the anus, was equally distended. The fæcal matter contained in the cæcum was hardened, but that in the colon and rectum was soft and pultaceous." Y.

ART. VI.—*A Treatise on Operative Surgery, comprising a description of the various processes of the art, including all the new operations;* exhibiting the state of Surgical Science in its present advanced condition; with 80 plates, containing 486 separate illustrations. By JOSEPH PANCOAST, M. D., Professor of General, Descriptive, and Surgical Anatomy in Jefferson Medical College, Philadelphia, &c., &c. Philadelphia: Cary & Hart, for G. N. Loomis. 1844. pp. 380. 4to.

Here is a great book—not in that sense in which it was said, a *great book is a great evil*—but a work of great size, of excellent design, and splendid execution. The labor of preparing such a work could not have been else than great, and its value to the profession may be pronounced very great. Better judges than we profess to be in such matters, declare, that the engravings surpass in beauty and accuracy anything that the American arts have yet produced in that line.

Of the opportunities for making his work what it purports to be, Dr. Pancoast thus speaks in the advertisement:

"With these admirable treatises (that of Froriep, of Berlin, and that of Bougery, of Paris,) before him as a guide, and having at hand the greater portion of the surgical works, which have recently appeared in various languages, and with the advantage which nine years' continuous service in one of the largest hospitals of North America has given him, not only in comparing to a certain extent the value of the different methods, but in enabling him to obtain a large number of accurate drawings of operations which have been done by his own hand, the author has endeavored to furnish a work that shall represent, so far as its limits will allow, the operative surgery of the day."

It is stated in the advertisement, that the limits proposed in the prospectus were found, as the author progressed, to be too restricted for so copious a subject, and that the publishers, with great liberality, consented to add sixteen plates, and one hundred and thirty pages of description, to the number at first promised, without increase of price to the subscribers. A worthy gentleman acting as agent for this work spent some weeks in our city, last winter, on his way to the South. We hope he met with liberal encouragement. By patronizing such works we are rendering a substantial service to our profession.

The examiner in his inspection of these drawings sees all the parts as they would appear to him if engaged in the operation. But besides the instruction thus clearly imparted by this admirable contrivance, the work contains a brief but sufficiently extended description of the surgical anatomy of the parts immediately concerned in the various operations. The pathological changes are also noticed where any account of these appeared necessary. The therapeutical management of surgical affections is not given at much length, because that would have extended the work to an immoderate size. It would hardly be expected in a work on operative surgery. Dr. Pancoast has done justice to the discoveries and improvements of American surgeons, and we hazard nothing in saying, that his work will enhance the character of the American profession wherever it appears. Y.

ART. VII.—*A Practical Treatise on the Diseases of the Testis, and of the Spermatic cord and Scrotum. With illustrations.* By T. B. CURLING, Lecturer on Surgery and Assistant Surgeon to the London Hospital, Surgeon to the Jews' Hospital, &c. Edited by P. B. GODDARD, M.D., M.A.P.S., M.A.N.S., Demonstrator of Anatomy in the University of Pennsylvania, &c. Philadelphia: Carey & Hart. 1843. 8vo. pp. 566.

The diseases of which this volume treats awaken in patients, it is well known, a degree of solicitude greater than is excited by maladies of a more fatal character, at the same time that they are often the most embarrassing that are presented to the medical man. A complete monograph on the subject has, therefore, been much needed by the profession in our country. That is now afforded in the work the title of which is given at the head of this article. Mr. Curling is admitted, on all hands, to have produced a treatise of uncommon excellence, in which is comprised the best extant information relative to affections of the testis. The volume is one of great neatness. The paper is of excellent quality, the type fair, and the wood-cuts finely executed. Altogether it is a work which one feels safe in recommending in the strongest terms to the profession.

The author begins with a concise account of the anatomy of the organs embraced in his treatise, which will be found by the student an interesting introduction to the diseases of the parts. Concerning the functions of the testis he has the following remarks:

"A boy reared in the country of a moral disposition and active habits does not experience the force of sexual appetite till the body is well developed, and nature permits the gratification of his passion without injury to the constitution. It is otherwise, however, with the young inhabitant of a city and the associate of the dissolute. Before puberty is complete and the body fully formed, desire is prematurely aroused by impure addresses to the imagination, and the development of the testis is hastened, and they are called into action earlier than if they were left solely to the impulse of nature.

Unlike the animal creation the testes in men are ready at all seasons to perform their office. The desires subside and the secretion of the semen becomes languid as life advances, though they seldom cease entirely till the age of sixty-five or seventy. Indeed, I have several times discovered spermatozoa in the testes of men upwards of seventy years of age, and once in the testicle of a tailor who died at the age of eighty-seven; and there are instances on record of persons retaining the procreative faculty to the age of one hundred years; but in these cases, as in the well-known instance of old Parr, the general bodily powers were also preserved in a very extraordinary degree."

But we shall not stop to make quotations from this part of the work, although it contains much matter which may be studied with advantage. The views of the author are marked by correct judgment, and a sound tone of morality.

Part II is devoted to a consideration of the diseases of the testis, of which the first chapter treats of congenital imperfections and malformations. We pass over this chapter, as possessing less practical interest than many other portions of the work.

The matter of the second chapter, on atrophy of the testis, is important. The causes of atrophy are given in detail, some of which are shown to be under the control of the patient, or of his medical attendant. Among these may be cited an impeded circulation, pressure, want of exercise, and inflammation. Atrophy has resulted from the pressure of a truss awkardly applied, and from that of a hydrocele or a hæmatocele, and is more frequently a consequence of inflammation. It is one of the evils to be apprehended from an attack of mumps. Abuse of the organs is another cause of atrophy, of which many instances are given. The long-continued use of iodine has been supposed to induce this condition of things, but our author calls the correctness of this belief in question. Most of the causes of atrophy lie too deep to be reached by the surgeon. Once established, from whatever cause resulting, we have but little power by any mode

of treatment to arrest the decay of the organ. The treatment consists in avoiding the causes.

Injuries of the testis are treated of in the third chapter, of which self-castration makes one, and of which interesting instances are related by our author, who remarks that such cases usually do well.

Much space is devoted to the subject of *hydrocele*, and is given with a minuteness which will satisfy the most curious inquirer. We make a few extracts from this chapter, and first as to the termination of the disease:

"A hydrocele may disappear without any treatment whatever. In infants this is a constant occurrence, but in adults is extremely rare. Mr. Pott has recorded two instances of the spontaneous disappearance of a confirmed hydrocele in the adult. One is the case of a gentleman forty-five years of age, in which the dropsical collection dispersed during six weeks' confinement for a severe fit of gout. The other is the case of a middle-aged man, who whilst intoxicated fell down and struck his scrotum against a piece of scaffolding, which caused considerable ecchymosis. This disappeared in about a fortnight, when it was observed that the hydrocele was much less in size than it was before the accident. In about three weeks more the whole of it had subsided, and it did not afterwards return. Sir B. C. Brodie also mentions that he has met with two examples of the spontaneous cure of hydrocele. In one of them the removal of the disease appeared to have resulted from inflammation set up in the sac.* A hydrocele has also been known to disappear permanently after an attack of orchitis, consequent upon the extension of inflammation from the urethra. But these cases are exceptions to the general rule, and are not to be taken into account in determining upon the treatment to be adopted."

In the fourth volume of this journal we related the case of an aged gentleman who was cured of hydrocele by a fall from his horse. The inflammation of the sac resulting from the vi-

* London Med. Gazette, vol. xiii., p. 90.

olence done to it in the fall, or more probably the rupture of the tunic, led to the absorption of the fluid. It is now more than three years since the subsidence of the tumor took place; but we were informed by our old friend, the subject of the complaint, a short time since, that the water was again collecting. This gentleman is now nearly 80 years of age, and does not think of submitting to an operation.

Our author does not highly esteem external remedies in cases of the disease affecting adult subjects. Such treatment is annoying, and only leads to loss of time. Occasionally the distended tunica vaginalis is ruptured by accidental violence, and the fluid finds its way into the scrotum. In some cases the hydrocele is thus permanently removed, but in general the fluid collects again. An operation is the only thing that can be depended upon as a cure. It may be of a *palliative* or of a *radical* character. The palliative operation consists in puncturing the tumor, which may be done with a lancet or trocar, so as to allow the escape of the fluid contained in the tunica vaginalis; but the relief it affords is only temporary, and the operation is again demanded after some time.

"I have had patients who for many years have been satisfied with the relief afforded by an annual operation; and in one case the fluid did not collect in a sufficient quantity to need removal for four years, when I drew off no more than sixteen ounces. In other instances patients have returned to have the fluid evacuated again at the expiration of two or three months, and even of a much shorter period. Indeed, I have known the hydrocele to regain its former size in the course of two or three days. Many persons suffer pain and uneasiness from only a small quantity of fluid, whilst others experience but little inconvenience until the hydrocele has attained a large size. In most cases the patient's feelings will be the best guide in indicating the necessity for a repetition of the operation."

Another mode of removing the fluid is by a puncture with a needle. The water instead of escaping externally, as in the former operation, gradually infiltrates the cellular tissue surround-

ing the sac, whence it is afterwards removed by absorption.

"Mr. Lewis, surgeon, of London, is entitled to the credit of having first recommended acupuncture to his professional brethren on the grounds of practical experience of its efficacy;* though no doubt can be entertained that the plan had been previously resorted to by other surgeons, who had regarded it as either too simple or too unimportant to deserve a formal notice, or who perhaps did not sufficiently appreciate its value.† Mr. Lewis' practice is to puncture the tumor with a fine needle until a drop of fluid oozes out on withdrawing it, and in a few days the hydrocele will entirely disappear. The absence of danger, the slow re-accumulation of the fluid, and the simplicity of the operation, are the advantages which he considers to be obtained by this mode over the operation of removing the fluid at once."

The operation for a radical cure is different in the hands of different surgeons. All the plans are described in this work—incision of the sac; caustic applied to the integuments; a tent introduced into the tunica vaginalis; a seton passed through the sac; and injection of the sac with a stimulating fluid. Mr. Curling prefers the latter mode, which is attended, according to his experience, by results much less severe than any of the other methods. We shall not follow him through the various details of the operation, for which the surgeon will refer to works on the subject; but the importance of the following remarks justifies their citation:

"I never inject a recent hydrocele, or one, however small, the first time of tapping, as it occasionally happens that the fluid ceases to collect after its evacuation. When the fluid amounts to more than ten or twelve ounces the hydrocele is unfit for injection, because the extent of the serous surface in large hydroceles is liable to render the effects of this treatment more severe than is desirable. In these cases it is better to draw off the fluid, and then wait until a

* Lancet, vol. ii. 1835–'36, p. 209.
† Vide note from Mr. Lewis on the Treatment of Hydrocele; Med. Gaz., vol. xix., p. 789.

smaller quantity is formed, when the operation may be undertaken with less risk. The surgeon should also be careful to ascertain that the dropsical effusion is not dependent on existing disease of the testis. A man was admitted into the London Hospital with a double hydrocele on purpose to undergo the operation for a radical cure. He had been suffering for some time previously from disease of the larynx, which increased soon after his admission, and caused suffocation and death. On examination of the testes, deposits of concrete pus were found in the substance of both the glands. In this case, had his state of health permitted of an operation, after removal of the fluid the diseased condition of the testes would probably have been detected, and injection, which could only have operated injuriously, would have been abandoned. The fluid effused around the diseased testis by producing pressure sometimes causes pain, and it may then be evacuated with benefit; but I need scarcely add that to attempt the permanent removal of the hydrocele whilst the original disease remains unsubdued, would be both fruitless and hurtful. The disease producing the enlargement of the gland must be treated without reference to the effusion, and it will commonly be found that as the affection of the testis subsides the hydrocele likewise disappears. Thus in several cases of hydrosarcocele consequent on an attack of orchitis, in which after drawing off the fluid the testis has been found tender as well as enlarged, I have succeeded by the exhibition of small doses of mercury, and by strapping, or by applying mercurial or iodine ointment to the part, in subduing the chronic inflammation of the gland and effecting the cure of the hydrocele. In some instances, however, inflammation of the testis or epididymis is the primary disease, the hydrocele and disposition to an increased secretion remain long after all morbid action has ceased. The case must then be regarded in the same light, and treated in the same way, as ordinary hydrocele; but the surgeon will do right to recollect that where inflammation has once been excited, its return is usually induced more readily and by slighter stimulating causes than before."

Electro-puncture is a modification which has been proposed in the operations for hydrocele. The American editor of this work cites a case cured by this method, in which the seton and injections had both failed. The operation is performed by introducing two acupuncture needles into the sac, and

connecting one to the positive and the other to the negative pole of a galvanic battery.

Of the complicated forms of hydrocele we will attempt no account, since it would be impossible in our prescribed limits to give even a satisfactory outline of the various modifications of the complaint, without omitting entirely a notice of other interesting topics discussed in this work. In like manner we shall pass over the chapter on hæmatocele of the testis and of the spermatic cord, to make a few extracts from the one which treats of orchitis.

"Inflammation of the testis," remarks our author, "is far more frequently a consecutive affection than a primary, the inflammation being transmitted from the urethra by the course of the vas deferens." It is then known by the term *hernia humoralis*. The causes are, mechanical injuries, mumps, 'great excitement of the organs without the opportunity of indulging the passions,' irritation of the urethra by foreign bodies, and the inflammation of that membrane in gonorrhœa. Of all these gonorrhœa is by far the most common cause, and as often gives rise to it when copaiba and cubebs are not used as when they are. The disease seems occasionally to partake of a rheumatic character, and to be induced by cold. Changes of a serious nature in the testis not unfrequently result from orchitis, the organ is more liable to inflammation afterwards, and often remains more sensitive, becoming swollen and painful on slight causes. Having given the general treatment in inflammation of this gland, our author proceeds:

"The cure of acute orchitis has been much facilitated, of late years, by the application of a mode of treatment which has been found of great service in relieving certain forms of acute inflammation in other parts of the body, viz. *compression*. The object of compression is to afford support to the weakened vessels; and in acute inflammation of the integuments, when properly applied for this purpose, and not so firmly as to produce pressure and arrest the circulation, it often proves a very valuable method of treatment. Dr. Fricke, of Hamburg, I believe, first suggested the practice of treat-

ing both acute and chronic orchitis by compression, applied to the testis by means of adhesive plaster. In an early report of this practice, he states that out of fifty-one cases of acute orchitis eighteen were treated by the ordinary means, and thirty-three by compression. In the latter cases the average duration of the disease was nine days, whilst in the former it was thirteen. In cases treated more recently, after improvements had been made in the mode of applying the compression, the result was still more favorable. This practice has since been adopted in Paris by Cullerier and Ricord; and in this country by Mr. Langston Parker, Mr. Acton, my colleague Mr. Hamilton, myself, and others, and, I am informed, by the army surgeons generally. Some care is required in making the application, which I perform as follows: The patient being placed in the recumbent position, with the testis raised, is to remain there three or four minutes, in order to allow the vessels of the gland to become as empty as possible. The parts are to be shaved; and some *emplastrum plumbi* must be cut into strips, about three-quarters of an inch in width, and eight or nine inches in length. The opposite testis and side of the scrotum being drawn away from the diseased one, so as to render the integuments of the latter quite tense, the first strap is to be placed circularly round the cord, just above the testis, as tightly as the patient can bear it. The second strap is to be placed in an opposite direction, from behind forwards, at the side of the testis near the septum. The third strap is to be applied below the first, so as partly to overlap it; and the fourth in like manner, internal to the second; and so on in succession, until the straps meet, and the whole of the testis is covered, and evenly compressed. A few additional straps may afterwards be applied where most needed to afford support, and keep the others in place; the parts are afterwards to be supported in a suspensory bandage. The strapping generally requires to be re-applied in the course of twenty-four hours. When the patient rises after its application he feels completely relieved from the aching pain and sense of weight; and patients who have remained in bed in consequence of the pain have immediately been able to get up and walk about. Some surgeons recommend the application of compression at the onset of the inflammatory attack; and if the inflammation be moderate this may be done with advantage, so that when concealment is desirable the patient may be able to continue his usual avocations. But in decidedly acute orchitis it is better to commence with an active purge, the tartar emetic, and, if neces-

sary, depletion, and to enjoin rest; and then, after twenty-four or forty-eight hours, to resort to compression: for in active inflammation of the testis compression is not always sufficient without other antiphlogistic means, and if solely depended on, may disappoint expectations. But after the more acute symptoms are relieved compression greatly facilitates the cure, affording relief from pain, causing the rapid subsidence of swelling, and removal of all effused matter. In cases of a chronic character, or to remove the thickening and induration of the epididymis and cord so commonly observed after acute consecutive orchitis, the testis may be strapped with the *emplastrum ammoniac cum hydrargyro;* or iodine or mercurial ointment may be first applied to the scrotum, and then the strapping, so as to combine the advantages of these applications and of compression. The removal of the chronic enlargement and induration may be further promoted by the exhibition of small doses of mercury. In these cases I sometimes keep up counter-irritation by painting the scrotum on the side with the following solution—*Iodin.* ʒj., *Potass. Iodid.* ʒss., *Sp. Vin. Rect.* ℥j.; repeating the application every third or fourth day, until the gland is restored to the healthy state. Blisters are sometimes used: but they are too irritating to be applied to the scrotum, and are even liable to cause mortification."

Tubercular disease of the testis, carcinoma, encephaloid, and various other degenerations of the gland are described in subsequent chapters, of which we shall not pause to make a single remark, as there still remain to be noticed other topics of greater interest to the practical surgeon. One of these is irritable testis, of which our author gives the following graphic description:

"A patient suffering from an irritable testis cannot in many cases bear the least pressure on the gland, not even the contact of his dress: he shrinks when the part is handled in the most gentle manner; and the motions of the testis often occasion so much uneasiness that he is prevented from taking exercise, and is compelled to remain constantly at rest in the recumbent position. There is no perceptible alteration in the parts, except occasionally a degree of fulness, more particularly in the spermatic cord; slight varicose dilatation of the veins, and a relaxed state of the scrotum. The complaint is usually tedious, and lasts many months. The persons sub-

ject to it are those of a weak and irritable habit, who are dyspeptic or hypochondriacal, and unequal to much bodily or mental exertion. In this affection all enjoyment of life and its pleasures disappears; the sufferers concentrate their thoughts upon their maladies; they fancy they shall never get cured; and whilst some become uneasy as to the effect of the complaint in impairing the integrity of the gland, and rendering them impotent, others as urgently desire castration as the sole means of relief from their distress."

In the treatment of this affection the first point is to remove the cause, which not unfrequently is connected with abuse of the sexual organs, after which we are to aim at improving the general tone of the system by tonics, of which the preparations of iron are the best. Cold bathing and sponging are also beneficial, and relief is often afforded by a change of scene and air which diverts the patient's mind from his complaints. In cases where it depends on an irritable condition of the prostatic part of the urethra, accompanied by involuntary seminal emissions, the author advises the application of nitrate of silver to the seat of the irritation.

The chapters on neuralgia of the testicle, and sympathetic and fundamental disorders of the organ are full of most interesting details, but they are of such a character that it would be impossible to condense them. With a single extract more, which is taken from the chapter on varicocele, we shall bring our imperfect notice of this compendious and most excellent treatise to a close. We have not pretended to exhibit its principles and practical instructions in outline, much less to give such a summary of its matter as would suffice for the practitioner. But we have exhibited its merits at sufficient length to satisfy our readers, that it is a work to which they may refer with profit concerning the diseases of the important organ of which it treats.

"The indication for the perfect cure of varicocele is not merely to aid and support the dilated and weakened vessels, but so far to relieve them of the superincumbent weight of the blood as to enable them to return to their natural dimen-

sions, and recover their tone so as duly to carry on the circulation. The first indication may be fulfilled to a certain extent by the suspensory bandage, and in some cases permanently by the excision of a portion of the scrotum; and in mild cases these plans are sufficient to give all the relief required, and to prevent the extension of the disease: the latter proceeding may be resorted to whenever the patient is tired of wearing the bandage, and is willing to submit to an operation which, though painful, is not under ordinary circumstances attended with danger. But neither artificial support, nor excision of the scrotum, is capable of fulfilling the second indication—of reducing the size and thickened coats of the dilated veins. The only plan which appears to be fully adapted to effect this object is firm, steady, and continued pressure on the spermatic veins at the ring by a well-adjusted truss. At present our experience of this mode of treatment is too limited to admit of any opinion of its efficacy being confidently expressed; but I look with no slight interest to the result of further trials of a remedy which seems to me to be based on no sound views of the pathology of the disease. This plan appears to be particularly applicable to cases of varicocele in young persons, whose reparative powers would be sufficient to restore the veins when relieved of pressure to a healthy state." Y.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Cases of Longevity no test of the average duration of man's life.—Some constitutions are found to resist vaccine matter. Here and there, constitutions appear which resist all the noxious influences by which they are surrounded, and attain extreme old age. Not unfrequently we find the existence of these solitary individuals referred to as proofs of the general salubrity of the very circumstances under which generations have fallen and been buried around them. It is a singular fact, as yet unexplained, that the greatest proportion of centenarians are of the laboring classes; and that instances of them have from time to time appeared amidst the crowded populations in some of the worst neighborhoods of London, where the average duration of life is the lowest. It is remarked by M. Mallet, that in Geneva extreme old age has not participated in the prolongation of life which has taken place in the less advanced ages. In the periods of from 60 to 70 years of age, the amelioration is considerable; after 70 years, there is no perceptible improvement; after 80 years, the aged have, indeed, a little less probability of life at the present time than they had in the 16th century. Centenarians, who were not rare in the 16th and 17th centuries, now disappear; during the last 27 years Geneva has not produced a single one.—*Sanitary Condition of the Laboring Population of Great Britain.*

Longevity greatest among the poor.—We will lastly allude to the extraordinary fact, as noticed by all writers on centenarians, that they are generally, if not universally, found in that class of society which gives the lowest mean duration of life. M. Corbeaux, who made researches upon the English and Scotch centenarians, says—"The recorded instances of unusual longevity are, almost without exception, confined to old soldiers who have escaped the worst chances of war, and to peasants whose circumstances placed them but a single degree above want of the common necessaries." In all Belgium, on the 1st of January, 1831, there were but sixteen centenarians, all of whom, according to Quetelet and Smets, belonged to the same class of population, *y vivaient dans des conditions trés médiocres.*

It is thus seen from the preceding researches, as regards centenarians, that they are most apt to be found in the worst periods of man's history, as respects the condition of population, and often too in the most insalubrious localities; that they abound in countries having a low mean duration of life, as in Geneva, in the sixteenth century, and that they decrease and finally disappear in proportion as the mean term of man's existence is extended by the improvement of his physical condition; and lastly, that they are always found in that class of society, which has the lowest mean duration of life. Hence it follows conclusively that a high proportion of centenarians does not depend upon a protracted mean duration of life in a community, nor is a great proportion of them to be regarded as an indication of national health or general longevity.

It is thus satisfactorily shown that of all attempts hitherto made by a certain class of philosophers to establish a distinction of species between the Caucasian and African, the present one, based upon the ratio of centenarians, is truly the most absurd. It also teaches the moral that he, who would strike a blow at one of the great principles of civilization, not to say of the christian religion, should first, at least through self-respect, make himself acquainted with what is known upon the subject.

Dr. Forry, in *N. Y. Jour. Med.*, for May, 1844.

Extraordinary Case of Vicarious Menstruation. By Dr. F. C. Stewart.—Margaret Campbell, the patient thus affected, has had her arm swollen to an enormous size at five sepa-

rate and distinct epochs, and always after an attack of dysmenorrhœa. The swelling has invariably continued until the restoration of the catamenial discharge; immediately after which, it begins to subside, and continues gradually to diminish until the arm is restored to its normal condition. It is now seven years since she first was troubled with it, and she has been as long as two years without having it to recur. Almost every variety of emmenagogue treatment has been pursued, and generally with very undecided effect. The arm has now been swollen since the month of September [this was on Nov. 18], and is so large as to measure fifteen and a half inches round the elbow, where it is the largest; the fingers and hand are likewise much enlarged and disfigured. The general health of the girl is good, and she experiences but trifling pain in her arm. She states that she is married, but has never borne children. The first invasion of the accident is attributed to her having put her hand into very cold water immediately after using some that was hot. Having her menses at the time, this imprudence checked them, and in a short time afterward the arm began to swell. So serious was the malady supposed to be by the surgeons who first saw it, that they are said to have recommended amputation.

[Since the foregoing statement was made to the society, we learn from Dr. Stewart that he has succeeded in restoring the menstrual discharge, by means of two setons, the one placed in the thigh, and the other in the hypogastric region; and that the arm has again returned to almost its natural size.]—*Ibid.*

On the use of Mustard in the Convulsions of Children. By Charles S. Tripler, M.D., Surgeon U. S. Army.—I had an obstinate case last summer, from teething, in which everything was tried, that I, or others, could think of, without success. As neither antimony, sulphate of zinc, sulphate of copper, ipecacuanha, nor any other emetic usually given, seemed to make any impression on the stomach, I thought I would try mustard, with a view to its emetic effects. In a few minutes it arrested a fearful attack of convulsions, that had lasted five hours; and that too, *without vomiting* the patient, for some time afterward.

A short time since I had three more cases in the course of a fortnight; with the first I tried the usual remedies, and I also made an ineffectual attempt at venesection (leeches could not be procured). The case still resisted, when the use of mustard again occurred to me. I gave it, and the patient was relieved in five minutes. With the other cases I used the mustard *at once*, and successfully. Its efficacy seems to have no relation to its emetic properties; for its sensible effect, in these cases, is as frequently to purge as to vomit. From my experience of the remedy, I do not hesitate to recommend its employment in these troublesome cases, in preference to any other internal remedy with which I am acquainted.—*Ibid.*

Nitrate of Silver in Diseases of the Eye.—1. Nitrate of silver is the best topical application that can be employed in a great number of acute and chronic affections of the eye.

2. In the various forms of blepharitis it should be used as an ointment.

3. In inflammations of the eyelids it is most advantageously applied in the solid form.

4. In slight inflammations of the conjunctiva a solution of from five to fifteen centigrammes* of nitrate of silver to thirty grammes of water are generally sufficient.

5. In purulent conjunctivitis the dose may be increased from two grammes to thirty grammes of water.

6. The use of the solid nitrate of silver may also be beneficial, but is hazardous.

7. It is always very advantageous, in the treatment of conjunctivitis to alternately increase and diminish the dose of nitrate of silver.—*Dublin Med. Press.*

Case of Dysphonia.—The sister of J. R., Esq., of this city, an estimable lady, who for several weeks had been unable to speak, except in a faint whisper, having tried some remedies in vain, consulted me. I directed her to rub three drops of Croton oil along the trachea; and having done this, she had, in a few hours, sense of constriction about the upper part of

* The gramme is nearly 19 grains;—centigramme one-fifth of a grain.

the thorax, followed by "two" expectorations of sanguineous mucus. Shortly after this, her voice became quite natural. This case is the only one in which I have ever observed the least unpleasant effect.—*N. Y. Jour. Med.*, for May.

Belladonna in Dysmenorrhœa and Neuralgia.—Dr. Golding Bird, at a late meeting of the London Medical Society, said he would make some practical observations on a subject which had been mentioned sometime since, the treatment of dysmenorrhœa, and for which the president had recommended veratria frictions over the loins. It is a very frequent complaint among unmarried women, so much so that Dr. Bird believed that every third case among them in practice was one of this malady. He was of opinion that an irritable uterus was connected with the various pains and aches which young people suffer from. The plan of treatment which he was about to recommend, was certainly empirical, but it was also very successful; he received it from his brother, when he was attending the practice of Dr. Roe in Westminster hospital. In treating these cases, he drew two distinctions founded on the seat of pain. In the first, there is experienced more agonizing pain at the lower part of the abdomen, just over the situation of the uterus: in the second class, the pain is composed of both. The first of these is the most intense, and the most frequently met with. He (Dr. Bird) has seen a lady roll off the sofa on to the ground in her agony of suffering. In cases where the pain is seated over the region of the uterus, in the lower part of the abdomen, he has given the belladonna internally, taking care that the extract is properly prepared, and has invariably found it successful; great relief is experienced at the next menstrual period; greater still at the succeeding one, and a cure is finally accomplished. The mode of exhibition must be modified according to the temperament of the patient. In young women, of a pale leucophlegmatic habit, with a pallid or chlorotic face, it should be combined with the sulphate of zinc, in the proportion of five grains of extract of belladonna to twenty grains of the sulphate of zinc made into twenty pills, one to be given every two or three hours, immediately on the accession of the pain at a menstrual period, until the pain ceases. For girls of a plethoric habit, with a red face, the extract should be combined with ipecacuanha, in the proportion of five grains

of extract to ten grains of ipecacuanha, made into twenty pills, administered in the same manner as the preceding. The previous treatment should consist in clearing out the bowels, improving the general health, and removing cachexia, and an aperient of castor oil or olive oil, should be given before the occurrence of the menstrual period. This treatment is to be repeated at each menstrual period, and will always effect a cure if there be not any organic disease, and the dysmenorrhœa be unattended with the discharge of shreds of false membrane. By removing the irritable condition of the uterus, and curing the dysmenorrhœa, the pseudo-pleurisies and pseudo-peritonitis, will soon get well. The cases in which the pain is seated, chiefly in the loins, do not yield to the employment of belladonna. This Dr. Bird considered was owing to congestion of the uterus. Fortunately the cases that are remediable are the most frequent.

Mr. Pilcher mentioned that he had tried belladonna in certain cases of neuralgia of the face, but not with the satisfactory result he had been led to expect. This he thought might have been owing to the bad preparation of the drug. He had since turned his attention to the exhibition of quinine, with which he had successfully treated two cases of neuralgia of the face and breast. Some years ago he gave a nephew of his, a boy six years of age, then laboring under a severe attack of pertussis, a combination of the extract of belladonna, with ipecacuanha, in the proportion of a grain of the extract to half a grain of ipecacuanha, three or four times a day, with marked benefit, the paroxysms being materially shortened, and great relief afforded. No narcotism was produced. In another case, that of a delicate little girl, it also afforded relief, but it produced dangerous symptoms of narcotism, and was consequently given up. He had directed it in several cases of tic douloureux, but it had not produced the effect he had anticipated. In the case of a barber's clerk, whose health was broken by neuralgia, caused by a decayed tooth, which had long since been extracted, he had prescribed a combination of three grains quinine and a quarter of grain of morphia every four hours, with very great relief. He had seen the man only twice, and he had not had any pain for forty-eight hours. In the case of a woman, also suffering from a similar affection, the same combination and smaller doses had afforded great relief. In neuralgia of the breast, where quinine fails, he had found benefit from Batty's liquor cinchonæ.

Dr. Waller observed that Dr. Bird's recommendation of

belladonna in these cases should not be lost sight of by him. He had been in the habit of prescribing it in such cases by itself with advantage, but could not effect a permanent cure. He had also employed the extract externally, spread on leather, with a rim or margin of adhesive plaster to make it adhere. In painful dyspepsia, gastrodynia, he had been in the habit of prescribing it with benefit. In one very obstinate case he had combined it with large doses of Scheele's prussic acid. He had also ordered it in cases of anamalous pains, of which he could not well tell the origin, and in one case in particular he had made a lucky hit, for he could not call it anything else. An old lady, who had a curious pain at the back of the shoulder, from which she had been suffering for several months, was relieved by it in forty-eight hours. He thought the distinction drawn by Dr. Bird with respect to the seat of pain in dysmenorrhœa, a very important one; in cases where the pain is felt principally in the loins, he had found more benefit from the application of leeches inside the vulva than from anything else.—*London Med. Times.*

Spermatorrhœa.—There exists on this, as on too many other subjects, no small difference of opinion; all observers, however, agree that spermatorrhœa may be produced by onanism, excessive venery, worms, hæmorrhoids, and constipation, which latter, I feel persuaded, is by no means an uncommon cause, more particularly when it is complicated with the former.

Professor Lallemand, of Montpelier, who has paid much attention to the pathology and treatment of this disease, has come to the conclusion that prolonged chastity is, indeed, almost invariably succeeded by spermatorrhœa; and he accounts for this result by asserting that after the age of puberty the seminal fluid cannot with safety be suspended or decreased, for no sooner does it collect than it begets incessant erections and nocturnal or diurnal emissions which cannot be prevented but by sexal congress:—"It is the sole effectual means, both for the *present* and *future*." His pupil, Dr. Dangerfield, has lately supported the same views.

The late Dr. Ryan of London (Manual of Midwifery, 1831, p. 60), thus expresses himself:—"All healthy persons, at the time of puberty, most certainly feel the passion of physical love. It is a part of their health, and as natural a consequence as *hunger* or *thirst*." . . . "It exists *independently* of the

will; it may be restrained, but not extinguished. Reproduction seems to be a *common* law of animal and vegetable life, and the disposition to reproduce it in all healthy subjects is most powerful. It is a passion that must be gratified." Again, when speaking of the treatment of impotence from seminal emissions, he maintains that marriage is the natural cure for the complaint; but, nevertheless, although concubinage is immoral, it "is so often acted on, in general, without a medical counsellor, that we must not be too ready to censure the faculty for occasionally proposing it." "Absolute continence," he adds, "from venery, in a healthy subject much disposed to it, induces many dangerous diseases, and even deaths."

M. Cruveilhier, of Paris, on the contrary, does not believe that spermatorrhœa is ever caused by venereal abstinence, nor will he consent to the doctrine that continence is prone to make inroads on the health of individuals. In support of the former, he reminds us of the physiological law "that the less secretion takes place," and in proof of the latter he appeals to his own personal observation among the young priesthood. To these deductions Dr. Bull consents, and contends that Physiological and ethical law can never be hostile to each other.

Dr. Carpenter (Principles of Physiology, 1842) concurs in these opinions, and censures those practitioners who recommend immoral connections. Such advice is "immoral, as well as unscientific." He thinks that the secretion of the testicles is very much under the influence of mind, and it cannot be denied, that his remarks are pertinent. In another part of his volume, however, he writes thus:—"To the use of the sexual organs for the continuance of his race, man is prompted by a *powerful instinctive* desire, which he shares with the inferior animals." . . . "This instinct, when once aroused (even though very obscurely felt), acts upon the mental faculties and moral feelings, and this becomes the source of the tendency to form that kind of attachment towards one of the opposite sex whlch is known as love."

Now, when we meet with such opposing and conflicting statements as the above just enumerated, it appears to me that a more extended and closer investigation is required before we can arrive at just or satisfactory results. The subject is altogether of too much importance to justify us in advancing, as facts, opinions which may be only the fruits of immature observation. At present, then, *lis sub judice est.* Whether continence be productive of spermatorrhœa, or not, in men who have never deviated from the paths of strict rec-

titude, I cannot undertake to determine; but that it is surely a cause of this disease in those who have at one period of their lives indulged in coition, but have subsequently abstained from it for any considerable time, I most assuredly believe; and that the best, if not the only, cure for malady is a moderate employment of the venereal organs. To this view I have been led from a tolerably fair experience. But I may be wrong; and after all, the whole difficulty in the medical science consists in ascertaining with certainty the precise influence which what we call causes exert on the animal economy. What is proved and received on one day is often disproved and rejected on the morrow. All must acknowledge the force of the objection urged by Cruveilhier. I cannot say that I have ever seen atrophy of the testicles in any healthy and normal individual, and I feel convinced that mental onanism (from which, perhaps, few are free) is alone sufficient to insure the secretion of the seminal fluid and to prevent the degeneration of the virile organs. Eunuchs even, according to Sir A. Cooper, are liable to erections and prostatic emissions.

I have been acquainted with but very few priests, but those whom I have known were healthy-looking persons. It is out of my power to say whether they lead a life of continence or otherwise, but I am aware that some, at least, of our own unmarried clergy gratify their amorous dispositions. I was once consulted by a clergyman, for constipation who practiced masturbation. He had never copulated, but had a great wish to be married; the *res angusta domi* prevented. He defended the practice of onanism, and urged that a man who did not enjoy sexual union was led to it instinctively. John Hunter asserted that masturbation, if confined within proper limits, was not injurious to the system.

But whatever differences of opinion may exist among medical men, in relation to the influence which chastity exerts in the production of spermatorrhœa, one thing is undeniable, namely, that the governments of Europe wink at the practice of illicit connection. In the time of Henry VIII. the stews of London were located in Southwark, and in France stews are publicly recognised at this very day. Moreover, the fact cannot be disguised, that there are few persons who have not given way to this vice, which is called by the historian Gibbon, the most liberal of all, drunkenness being the most illiberal. Although an indulgence in this vice is immoral, and notwithstanding the Saviour has declared that of all sins that of fornication is the most inimical to his religion, yet it does appear that the members of society seem much more willing to de-

fend or excuse it, when confined to single men, than almost any other. Now, although I do not agree with Dr. Bull in believing that continence cannot ever give rise to the inordinate seminal discharges, or be otherwise obnoxious to the general health, but on the contrary, that moderate sexual congress is required to preserve the health, still I cannot either advocate the practice of onanism, or justify fornication. The latter tends greatly to the demoralization of the human species, and is frequently followed by the most wretched ailments. It aims a death-blow to the two great pillars of human society—marriage and parental care. No man either, who endeavours to act up to the precepts inculcated in the New Testament, can consistently or quietly recommend it. Can any believer in Christianity advise his fellow-man (more particularly when he is suffering from a most distressing malady) to spurn the dictates of his Maker to follow the courses of Mammon? But, say others, is he, then, miserably to pine away and perish? I answer, no; let him rather marry, and "eat the bread of carefulness." What, urge a man to disgrace his family and to burthen the state by entering into a matrimonial alliance when he has not the means wherewith to do so? Would any Christian believe that there is a society in being which holds out pecuniary rewards to laborers to remain single till they have attained the age of thirty! Would they have men for a period of eight years go about trying to seduce their own daughters, perhaps, or those of their fellow-men? No; let them restrain their passions. Yes; but that is in the power of very few men to accomplish. If we could, indeed, command our appetites, life might approach truly unto happiness. Erroneous views of life usually lead to unnatural and unfair designs. Knowledge, if not necessary to virtue, is of great assistance to it. We are told by the apostle it is better to marry than burn, and that marriage is honorable to all men; but hear what the shrewd and learned Burton, (himself a divine) says,—"No man shall marry until he be twenty-five, no woman till she be twenty—*nisi aliter dispensatum.* If one die, the other party shall not marry until six months after, and because many families are compelled to live niggardly, exhausted and undone by great dowers, none shall be given at all, or very little, and that by supervisors, rated; they that are foul shall have a greater portion; if fair, none at all, or very little; however, not to exceed such a rate as those supervisors shall think fit. And when once they come to those years *poverty* shall hinder no man from marriage, or any other respect; but all shall be rather *enforced* than hindered, except they be dismem-

bered, or grievously deformed, infirm, or visited with some enormous hereditary disease, in body or in mind, in which cases, upon great pain or mulct, man or woman shall not marry; other order shall be taken from them to their content. If people over-abound, they shall be eased by colonies." (Burton's Anatomy of Melancholy: Democritus to the Reader.)* Of course, we have improved much since Burton's time, and we now have an opportunity of reading the instructive pages of Malthus. "How odious and abominable are those rash vows which bind and enforce men and women to vow virginity, to lead a single life against the laws of nature, opposite to religion, feeling, and humanity! so to starve, to offer violence, to suppress the vigor of youth! and all for base and private respects to maintain their gross superstitions, to enrich themselves by hindering some marriages, that the world be not full of beggars, and their parishes pestered with orphans."

A few words as to *the treatment* and I have done.

The bowels must be kept regular by the use of mild aperients, or (what is better) by means of enemas, which should be thrown up every morning. The genitals and thighs to be sponged with cold water, and the greatest care should be employed to wash away the secretion which accumulates around the corona glandis. The general surface of the body may most advantageously be benefitted by the daily ablution with salt and water. An injection composed of twenty minims of the sedative liquor of opium in water, should be had recourse to every night on going to bed, care being taken to allow it to remain in the urethra for some time. A leech or two may occasionally be applied to the perineum, or under the root of the penis. The solid nitrate of silver I have found an excellent remedy when applied to the orifice of the meatus, but I have not employed it more than once a week. It affords much relief, but it is not permanent. I have never used it as lauded by Lallemand. The patient should sleep with his head high, and on his side: I have generally noticed that seminal emissions occur towards morning, when the person is lying on his back. The disulphate of quinine with sulphuric acid may be exhibited internally, and afterwards iron may gradually be persevered in. Tea and coffee should be avoided, and fresh milk used in their place. There is no objection to the patient's taking mild bitter beer at dinner, but wine must be banished. Great

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*This quaint, learned, and amusing work should be in the hands of every medical man.

restlessness is a constant attendant on this disease, and opiates have been extolled, but I have never given them a trial. When lettuces are in season one may be taken for supper, about an hour before bed-time. The bed-coverlets should be thrown down towards the foot for some time before the patient retires, and if towards morning the afflicted individual finds that he has had but little repose, he should turn them down again, and walk about the room for a few minutes. By this simple method sleep may often be procured, but under these circumstances he should not rise early. The patient should marry, but he must not indulge in venereal combats more than once or twice a week. Venery is very apt to cause balmy and refreshing repose,—"Finito opere, cupido pacatur, irritatio summovetur, corpus solvitur, et somnus facilius obrepit." All mental onanism must be destroyed, for there can be no doubt that the "lust of the eye" tends greatly to augment the complaint. Until it is perfectly cured, horse-exercise should be strictly prohibited; but walking may be undertaken daily. The attentions should be fixed on some engaging occupation, and the society of indelicate females must be discarded. Frequent changes of scenery are of much service.

Obediently yours,

T. C. Lewis, M.R.C.S.,&c.

Wolverhampton, December 19, 1843.

London Lancet.

Some Account of an Hysterical Affection of the Vocal Apparatus, with several Cases. By Oscar Clayton, Esq.—The cases occurred in a charitable institution for female children, from the age of nine to that of fourteen. The cases were seventeen in number. They began with feverish and ended with hysterical characters. The main feature was spasmodic cough, which, in a few weeks, changed to sounds varying in the different patients; in some resembling the double action of a large saw; in two, a shrill screaming expiration, following a quick catching inspiratory effort, much resembling the cry of a peacock; in another, the sound was such as is produced by blowing into a small metallic tube. In fact, it is difficult to conceive the dissonance and constancy of these sounds.

All kinds of remedies failing, the patients were sent home, where they recovered, but on coming together again, the same farce was re-enacted. An attempt was made to frighten the

complaint away, by calling the girls together, and informing them that, if not better the next morning, a hot iron would be applied upon their throats. Most of them ran away, but the complaint was not got rid of. A hot spatula on the throat did some good; time did more.—*Med. Chi. Rev.*, Jan.

Epidemic Ague, or Fainting Fever of Persia.—Dr. Bell, physician to her Majesty's mission at Persia, has published an account of this disease, with which four-fifths of the inhabitants of Teheran were attacked, and above one-sixteenth of the whole population died of it. It presented some points of analogy with the cholera asphyxia in its nature and habits, and pursued the same north-westerly course which that epidemic took some years since, when it visited Europe. Although dangerous when left to maturity, it is most amenable to treatment. It is essentially a quotidian ague. The following are the principal modes in which it produces its dangerous or fatal effects: general venous congestion, and consequently impeded action of the heart and cessation of the circulation, sudden effusion into the lungs, exudation from the capillaries generally into the cellular tissue, diseased spleen, constantly recurring ague, general dropsy and failure of the powers of life. There may have been other causes, but these Dr. Bell was unable to note, from not having been able to obtain post-mortem examinations. There are several varieties of the disease, more or less marked in their character, the more severe merging into true cholera. The treatment consisted in the exhibition of quinine with iron and sulphate of magnesia, and in bleeding from the arm, where requisite. The blood generally presented characters similar to those noticed in cholera.—*London Med. Times.*

On the Temperature in children.—At the Academy of Sciences 26th December, Dr. H. Rogers read a memoir on the temperature of children in health and during disease. Prof. Bouillaud was the first who employed the thermometer, to discover the degree of temperature of the patient during disease. Since then M. Donné has published some remarks on the state of the pulse and respiration during disease, compared with the temperature. Professor Piorry in his treatise

on diagnostics states that in health it is 104° F.; in prurigo without fever 108°75, and in typhus 117°; and lastly, in his lectures, Professor Andral pointed out the state of the temperature in adults. The end the author proposes to attain is: 1st. To point out the modifications produced by disease in the temperature of children. 2d. To search out the laws which may be deduced from these facts. 3d. To make use of the laws for the diagnostic. But before indicating the state of the temperature of the child during disease, it is necessary to fix precisely the degree when in health, thus, *on coming into the world*, the thermometer placed in the axilla marked in one case 100° and in another 98°. *Three minutes after*, it descended to 96°80, then 95°90, and finally 95°45. The next day it was as on coming into the world. On thirty-three children from one to seven days old, the average was 98°60; a greater activity in the circulation, male sex, &c., seemed to produce a slight elevation. On twenty-five from four months to fourteen years old, the maximum was 100°, the minimum 98°. As to the circulation, digestion, and respiration, they seem to be without any influence.—*Ibid.*

Operation for Hare-Lip.—Mr. Fergusson's opinion is, that under all circumstances, the best period for operating is immediately after suckling, provided the patient is otherwise in good health, and does not suffer from teething. It is usually a very safe operation at all periods of life.—*Ibid.*

Restored Vision.—A remarkable case of perfect restoration of vision, after a total blindness of many months, has been brought to our notice within a few days, which reflects the highest credit on the skill of Dr. Davenport, of this city. The patient had been dreadfully injured by an explosion of powder, which wholly destroyed one eye, and so deranged the other that no encouragement had been given, before he fell under the cognizance of this gentleman, that light would again shine in upon the retina. Owing to extensive inflammation, the pupil was obliterated; and no one less ardent or devoted to the interests of his profession, would have indulged a hope of opening a new window through the thickened se-

mi-transparent tunics of such an eye. A new pupil was formed—and, lo! a cataract was found. Dr. D. couched the unfortunate man—and, to their mutual delight, vision was restored. A beautiful colored drawing has been executed, illustrative of the external appearances before the operation, which should be published for a guide in similar cases. We are expecting the details at a convenient time.

Boston Med. and Surg. Jour. for May.

Nervous Headache.—Dr. R. Howard prescribes, with success, for nervous and various other headaches, a mixture of a drachm of acetic acid, an ounce of compound tincture of cardamoms, and four ounces of some convenient vehicle, of which he directs a mouthful to be taken every 20 minutes.

London Lancet.

Hydriodate of Potash.—A writer in the London Lancet condemns the practice of giving this medicine in half ounce doses, which, he thinks, would prove fatal if the article were pure. He says:

Gr. x. *ter die*, is the largest dose that I have ever given, beginning with gr. iij. *ter die*, with the greatest success (internally) in cases of diseased joints. Externally I have used it with curative effects in form of ointment, thus:—℞ Hydriod. pot. ʒj.; aq. distill. ʒj. Solve and mix with ℥j. of lard; a piece of the size of a large nut, to be used two or three times a day. I have at this moment a case of bronchocele which is progressing favorably under the use of the remedy; the patient has come from Gravesend to be under my care. She was all but suffocated, and left to die, after consultations repeated during eleven or twelve years. I believe I shall cure her.

Erysipelas.—Medical Society of London.—Dr. Clutterbuck in allusion to the discussion of the last meeting, explained that he confined his remarks to the more ordinary form of erysipelas, affecting the head and face. He proceeded to remark that he considered the term erysipelas should be confined to cases in which the skin only was affected, and con-

sidered the definition of Cullen respecting the disease to be the most correct, "an inflammation of the skin tending to spread around."

We regret that we have not space to give in full the observations made by Dr. Clutterbuck, and that we must content ourselves with a summary of the copious report sent to us. The chief points insisted on were the facts that erysipelas was of the nature of all other inflammations, but modified by the structure affected—that the skin being an organ of sense influenced more or less the brain, and particularly so when the erysipelas affected the head and face. This injurious influence might amount to mere irritation, or extend to inflammation, but, generally speaking, it did not require very active treatment either by blood-letting or stimulants. He was still of opinion that the passive or palliative treatment, such as he had advocated at the last meeting, was the most likely to be generally successful.

In the conversation which followed, the subject of the contagious nature of erysipelas was discussed. No facts, however, on either side of the question were advanced, but the president was of opinion, from his own experience, that the disease never was contagious, although it might certainly become epidemic in hospitals, from persons breathing constantly the impure atmosphere surrounding those persons affected with the disease. He mentioned, also, in regard to the treatment of the affection, that a physician of much practice in London was so confident of the value of the nitrate of silver in this affection that he went so far as to assert, that when a strong solution of this chemical was applied sufficiently early over the inflamed surface it invariably succeeded in effecting a cure.—*London Lancet.*

Arsenic in Diseases of the Skin.—We have to thank Mr. Erichsen for some valuable remarks on the use of arsenic in cutaneous affections. The indiscriminate use of this article in certain diseases of the skin, has no doubt frequently brought discredit upon it.

One great principle to be held in view in its use is never to administer it in the early, acute, and inflammatory stages of the affection. The solution of arsenic of potassa (Fowler's solution) and the solution of the iodide of arsenic and mercury (Donnovan's solution), are the two preparations which are most frequently prescribed in this country; and the for-

mer is by far the more popular of the two. Different authors vary a little as to the dose of Fowler's solution which ought to be given; but most of them agree that we ought not to exceed 15, or at most 18 drops in the course of the day. Mr. Erichsen, however, begins with two minims of the solution twice a day, and increases the dose to 5, 6, or 7½ minims three times a day, beyond which, he says, it ought not to be carried, as its good effects will be more evident from small doses continued for some time, than from larger doses which have to be sooner relinquished. Some patients, however, are so excitable that the smallest doses are inadmissible. Another good preparation is the iodide of arsenic, introduced by Dr. A. T. Thompson. The dose is the twelfth of a grain twice a day, to be increased to the sixth or the fourth of a grain three times a day, although these doses are seldom necessary. It is well to combine the extract of conium with iodide of arsenic, in order to sheath its irritating qualities, and prevent it from exciting too powerfully the mucous membrane of the stomach. By the addition of the biniodide of mercury, a compound pill may be formed, which resembles in its effects the liquor of the hydriodate of arsenic and mercury, and which has been found by Dr. A. T. Thompson very efficacious in lupus, and by Mr. Erichsen in some syphilitic eruptions, more particularly when of a squamous kind. A pill may be made containing one-twelfth of a grain of the iodide of arsenic, one-sixth of a grain of the biniodide of mercury, and two grains of the extract of conium; to be given twice a day. The iodide of arsenic may be gradually increased to one-sixth of a grain, and the biniodide of mercury omitted at the end of a fortnight, or sooner, as it might affect the gums. The diluted biniodide of mercury ointment may in some cases, as in syphilitic psoriasis, be also applied externally at the same time. Arsenic seems to be an excitant or stimulating tonic, acting chiefly on the digestive, nervous, and integumentary systems; and when the dose has been pushed so as to irritate any one of these parts, the medicine ought to be immediately suspended, or greatly reduced in strength. The time for prescribing arsenic in a cutaneous affection requires, perhaps, as nice a discrimination as can be exercised. Mr. Erichsen points out a mode of practice which will be generally serviceable in these cases. As it is in the chronic stages that the remedy is to be used, he first ascertains whether the affection will bear the topical application of mild stimulants, such as the ointment of the white precipitate, or of the nitrate of mercury diluted with equal parts of the spermaceti ointment.

or a solution of the sulphuret of potassium in the proportion of about a drachm to the pint; and if any of these applications can be borne without increasing permanently the severity of the disease, the internal administration of arsenic may likewise be beneficial. In illustration of this opinion he adduces as an example that very common disease, eczema, which, when, in its acute stage, in which it will bear no other topical application than the most soothing poultices and fomentations, will infallibly be greatly increased in severity by the employment of arsenic, even in its most minute doses; but at a more advanced period, when it can bear topical stimulants, the same disease will be greatly benefitted by the internal administration of this medicine. The diseases of the skin for which arsenic is recommended may be of very different kinds, but they all agree in this, that they are characterized by the presence of scales or scurf; and even when they do not belong to the order *squamæ*, they are usually but little benefitted until they arrive at that stage in which they assume a furfuraceous or scaly condition.—*Braithwaite's Retrospect.*

Nature and Treatment Hæmoptysis.—Dr. Graves has very clearly explained the difference in hæmoptysis, when the blood comes from the bronchial or from the pulmonary arteries. The blood going to the lungs along the bronchial arteries being red, while that in the pulmonary is dark venous, it will be evident by the kind of blood which is expectorated from whence it originates. Dr. Graves has shown that when it arises from the branches of the pulmonary artery, it is in consequence of the direct effusion of blood from those branches which ramify on the air-cells, and that the blood expectorated has nothing to do with the bronchial mucous membrane or bronchial arteries; and that the blood may escape into the inter-vesicular pulmonary tissue, where, having no exit like the portion which is thrown out into the air-cells, it may remain. This constitutes pulmonary apoplexy. He does not allow that when blood expectorated is dark venous, it necessarily comes from the stomach, but correctly shows that it may be equally dark and venous when arising from these pulmonary branches; and that when the stethescope is applied, the signs of disease of the lungs will often be evident enough; at the same time even blood from these vessels may be rather red, owing to its partial aëration. From these circumstances, when we find that in pneumonia the expectora-

tion is tinged with dark venous instead of arterial blood, we may conclude that it is of a more dangerous nature than when the bronchial vessels only are implicated. When these last mentioned arteries give rise to the hemorrhage, it is generally of a less dangerous nature and more scanty; although it occasionally happens that even when from this source it becomes alarming. One very important indication of treatment in cases of hæmoptysis is to relieve the congestion and arrest the further effusion of blood, by copious depletion; and the extent and promptitude of this measure will depend upon the fact whether the hemorrhage is arising from the pulmonary or from the bronchial vessels. If from the former it will be more dangerous and extensive, owing to the blood plugging up and obliterating the ultimate divisions of the air-tubes, perhaps to a great extent of surface; but if from the bronchial vessels only, this effusion will seldom be very extensive, and not nearly so dangerous as in the former instance, arising in phthisical cases perhaps rather from the congested state of the bronchial membrane than from ulcerative action implicating the vascular tissue. When free depletion has been adopted, according to the case, Dr. Graves relies chiefly on ipecacuanha given in doses of two grains every quarter of an hour, until there is some improvement, and then every half hour or hour until the bleeding stops. This remedy is to be preceded by a purgative enema and a saline cathartic. The ipecacuanha is recommended not only in these cases, but also in hemorrhage from the bowels, and even in hæmatemesis in preference to the acetate of lead, which Dr. Graves employs only in those cases of passive hemorrhage in which opium is indicated, and then in combination with the last remedy. We have tried this treatment with great success in our own practice, but have been equally successful with the tartarized antimony, except in those cases where the alimentary canal has been the part affected; and we suspect that it will be found that the same good effect will arise from all or most medicines which have a nauseating influence on the system.—*Ibid.*

Doctors.—Now that I am talking of doctors, what a strange set they are, and what a singular position they hold in society! Admitted to the fullest confidence of the world, yet by a strange perversion, while they are the depositories of secrets that hold together the whole fabric of society, their influence is neither fully recognized, nor their power acknowledged.

The doctor is now, what the monk once was, with this additional advantage, that from the nature of his studies, and the research of his art, he reads more deeply in the human heart, and penetrates into its inmost recesses. For him, life has little romance; the grosser agency of the body, reacting ever on the operations of the mind, destroys many a poetic day-dream and many a high-wrought illusion. To him alone does a man speak, "*son dernier mot*," while to the lawyer, the leanings of self-respect will make him always impart a favorable view of his case. To the physician he will be candid, and even more than candid; yes, these are the men, who, watching the secret workings of human passions, can trace the progress of mankind in virtue and in vice; while ministering to the body they are exploring the mind; and yet scarcely is the shadow of fear dissipated, when they fall back to their humble position in life, bearing with them little gratitude; and, strange to say, no fear!

The world expects them to be learned, well bred, kind, considerate, and attentive, patient to their querulousness, and enduring under their caprice; and after all this, the humbug homœpathy, the preposterous absurdity of the water cure, or the more reprehensible mischief of mesmerism, will find more favor in their sight than the highest order of ability accompanied by great natural advantages.

Every man, and still more, every woman imagine themselves to be doctors. The taste for physic, like that for politics, is born with us, and nothing seems easier than to repair the injuries of the constitution, whether of the state or individual. Who has not seen, over and over again, physicians of the first eminence put aside, that the nostrum of some ignorant pretender of the suggestive twaddling old woman, should be, as it is termed, tried? No one is too stupid, no one too old, no one too ignorant, too obstinate, or too silly, not to be superior to Brodie and Chambers, Crampton and Marsh; and where science, with anxious eye and cautious hand, would scarcely venture to interfere, heroic ignorance would dash boldly forward and cut the gordian difficulty by snapping the thread of his life. How comes it that these old ladies of either sex never meddle with the law? Is the game beneath them, when the stake is only property and not life? or is there less difficulty in the knowledge of an art whose principles rest on so many branches of science, than in a study founded on the basis of a precedent? Would to heaven the "ladies bountiful" would take to the quarter sessions and the assizes, in lieu of the infirmaries and dispensaries, and make Black-

stone their aid-de-camp, vice Buchan retired.—*Dublin University Magazine.*

Sciatica—Iodide of Potassium.—Dr. Hunt, who has written a work, highly commended in the London journals, on Neuralgia, relates the following interesting case:

"A gentleman of middle age, of strong robust health, a great fisherman, was seized with a violent attack of sciatica in both legs, after having stood for many hours in the water. The violence of the attack was subdued by medical treatment; it then gradually dwindled into a chronic form, and resisted the efforts of numerous physicians and surgeons for the space of four years. The consequence of this protracted suffering was impaired health, loss of flesh, loss of spirits, of energy, and power over the lower extremities, which were wasted in a greater degree than his emaciated body. The pain was constant, with great nocturnal exacerbations, and with some degree of nightly fever. In this miserable state, after every remedy, rational and empirical, both here and in Germany, had been tried and failed, he was advised to take three grains of the iodide of potassium, in the decoction of sarsaparilla, three times a day. On the fourth night the pain was sensibly diminished; on the fifth more so; and at the expiration of ten days he was perfectly free and easy. He continued the medicine six weeks, at the end of which time he was restored to his former health; he had also recovered the use of his legs, which were ultimately restored to their usual size and firmness."

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PROFESSOR CALDWELL AND ANIMAL CHEMISTRY.

We are not sure that the right of replying in the same publication to a review of his writings, is one which an author can successfully set up, but in the case of our friend, Professor Caldwell, it is a privilege which we cheerfully concede. As he thinks injustice was done his "Critique" by our notice of it, we are happy to afford him an opportunity of placing it in what he considers its true light before our readers, since every proper feeling that could operate upon any one, influences us to render exact and ample justice to our distinguished colleague. Far from intending to treat his work with severity, we declare that, having read two notices of it, one in the Western Lancet, and the other in the Philadelphia Medical Examiner, which appeared to us to have been written in a spirit of unjustifiable acrimony, it was our anxious desire to observe the utmost courtesy of manner, and, in exhibiting the fallaciousness of the argument, to avoid every expression which could give offence to the venerable author. We have had but little experience in this busi-

ness of criticism, but that little has taught us, that few things are more difficult than to find fault with a book in language pleasing to its writer. We strongly suspect that the pen of the critic, like the knife of the surgeon, is always regarded by the subject of it with decided aversion.

Our learned friend has deemed it worth his while, as an offset to our criticisms, to quote the opinions of a number of eminent men highly complimentary of his "Critique," in regard to which we have only this to say, that we are sure not one of those writers experienced greater pleasure in bestowing their praise upon the work than we should have felt in paying to it our humble tribute, if the same had been our estimate of its merits. It will be admitted, we think, that our fault, heretofore, has not been that of underrating the writings of Dr. Caldwell, and it cannot be thought strange if for this reason we are slow to suspect ourselves of having committed that error in our review of his "Critique." But should it be decided, in the end, that we were betrayed into it, we ought at least to have the credit of having fallen into it most unwillingly. Before dismissing this point we will add another remark, which is, that our friend has taken quite too seriously a number of the expressions in our article. Such is the case in regard to our account of his "fifty year's sleep." Surely he could not suspect us of the folly of charging him with having slept fifty years in relation to *physiology*. Did we not set out with the declaration, that he was one of the most learned physiologists in America? Who knew better than we how *wide awake* he had been to Phrenology and Mesmerism, to mention no other subjects? Was it not known even to the *"million,"* that in relation to these branches of physiology, esteemed by him paramount, he had not only not slept, but had always been far in advance of all his American contemporaries, if not of the age? It could not, therefore, have been in this sense, but in a far more limited one, that there was any propriety in comparing him to the great epic poet, who is said, sometimes, to have been caught napping. It was only in reference to animal chemistry, that we meant to accuse him of not having given his acute and vigorous faculties fair play. It was only against the accumulating light pouring in upon physiology from that quarter, that he appeared to us to have kept his eyes resolutely shut for half a century.

But we will not insist upon the truth of these appearances. We

will even agree that this light may possibly be an *ignis fatuus*, and that all the world has been deceived by it, except our learned correspondent. He holds, if we understand his "Vindication," that chemistry, so far from aiding physiology, pollutes it, not only is not a hand-maid, but an enemy—that the blood is a homogeneous fluid, which no gas or other foreign body can enter, "*in its formal state*," and hence that all medicines act by *sympathy*—that all the processes of animals are purely vital, chemistry having no concern in them, nor power to throw light upon them—and, consequently, that the essays of physiologists to explain any of the vital functions upon chemical principles, are but so many "unwarrantable aggressions" of chemistry upon the fair domain of physiology. In all of which, we repeat, it is possible that he may be right; but in relation to the whole of it, we believe it will not be denied, that his views, to say the least of them, are exceedingly antiquated.

But this devotion to doctrines early embraced and long cherished, is it not somewhat characteristic of great minds, as, indeed, is there not something magnanimous, almost heroic in such constancy? So may we not say of our venerable friend, in this aspect of the case,

"And e'en his failings leaned to virtue's side!"

In such spirit as this, we are persuaded that our distinguished correspondent would rejoice at an opportunity of attributing to us any useful discovery in physiology; for he is hardly less remarkable for his overweening partiality to his friends, than for a strong attachment to his theories. We will not affirm that it was in this spirit that he ascribed to us the authorship of what he styles "an *embryo* air-penetrating and air-rambling story." But in whatever spirit tendered to us, we are compelled to decline the honor, because the feathers would be stolen. The idea is not ours, that moist animal membranes, and even the skin, may be permeated by gases. It is a fact established by experiment. Neither is it our notion, that the lining membrane of the bones of birds extending from the lungs, is an appendage to their respiratory apparatus. True or false, this "scrap of chemico-physiology" belongs to the respectable body of physiologists in common; and as bearing upon the question we cannot help regarding two facts as worthy of consideration—that birds contrive with their respiratory apparatus, large or small, to evolve much more carbonic acid than is done by mammals of the same size, and that their temperature is also higher.

Again, we repeat the expression of our sincere regret that our review was, in any way, objectionable to our respected correspondent, but, at the same time, we are obliged to confess, that he has neither "startled nor alarmed" us by the array of testimony which he has brought against animal chemistry. On the contrary, we have felt a good deal of surprise that he should have called many of his witnesses to the stand on so slight an acquaintance with them. What, for example, if it should turn out that there is no such "highly respectable American chemist" as Dr. Kemp, and that the Dr. Bird whom he quotes is not an American, but an English physician? True, that does not invalidate the testimony of these men; it only shows that our correspondent was not well acquainted with his witnesses. But what is their testimony? In nothing opposed to any view we advanced in the article which has called forth the animadversions of our correspondent. Dr. Bird attacks Liebig's pathology, to which we are not in the slightest degree committed, and he refers to Dr. Kemp, of Cambridge, as having detected an error in the composition of the bile assumed by Liebig as the basis of some of his reasonings. No one, we suppose, ever doubted, most certainly we never denied, that the great chemist of Giessen had fallen into errors. Much of his work on Animal Chemistry is made up of speculations, which are offered to the world as such. Doubtless many of these are crude, and will not stand the test of experiment. But such, we believe, are not those attacked by Professor Caldwell in his Critique.

We cannot go fully into the proof here, but it would be easy to show, if it were deemed important, that the witnesses of our friend generally testify much less for than against him. This is particularly true of Pereira, as all who have studied his valuable works will agree; and, as far as we can judge by extracts from their writings, it is even more true of Dumas and Boussingault. They all object to points of Liebig's doctrines, and, with our countrymen, Professors Hare, Bache, and Silliman, believe that their German contemporary has pushed some of his doctrines farther than the existing state of our knowledge authorizes, and has been betrayed into errors, as was admitted in our article; but on the great question of the agency of chemistry in the animal functions, they are decidedly with him, and decidedly opposed to our learned correspondent.

Concerning the respiration of consumptive patients we still think we were correct in our statement, that it is more frequent than in healthy subjects. There are, no doubt, exceptions to the truth of remark, of which the case referred to by our correspondent is one; but we are mistaken if practitioners will not agree with us, as Watson in his lectures distinctly affirms, that in consumption the breathing is generally hurried. What the action in the morbid system is upon which the undue development of heat depends, is not understood. One of the circumstances attending it is the suppression of perspirable matter, which is well known to augment the fever. This phenomenon is present in the febrile paroxysms of consumption, and is, perhaps, the chief cause of the increase of temperature. But it is proper to remark, that an exalted temperature is by no means an invariable accompaniment of phthisis pulmonalis. "In a considerable number of patients" afflicted with that disease, Andral found that Fahrenheit's thermometer "placed under the axilla, did not rise above 97°, and in some did not go beyond 95°." This low temperature he "observed only in persons whose lungs contained a great many caverns, and were indurated in a great part of their extent," and in whom, of course, respiration was necessarily limited.

In his strictures on our remarks relative to the temperature of infants and vegetables, our learned correspondent overlooks the fact, that we cited our authority in both cases. That of Dr. John Davy for the temperature of young animals is of unquestioned weight; and concerning the temperature of trees, we see no reason to doubt the accuracy of the experiments of Mr. King, who was sent out by the British government with Captain Back in his exploring expedition to the polar seas. But while he fails to see this, we confess he finds much more than we are able to discover in other parts of our paper. We have not been able to perceive in our "remarks on hyperborean and tropical savages," that "concoction of inconsistency error, and self-contradiction," which our learned friend professes to have detected. On the contrary, they appear to us to contain the plainest narrative of facts that we could have given. Our account of the matter was, that the inhabitants of northern climates require more food, and food of a richer quality, than the inhabitants of warm countries—that carbon, in the form either of fat animal matters or of starch, enters largely into the diet of every northern people—that men are more active in cold weather than in hot, and in nor-

thern latitudes than in tropical regions, and that if there be southern tribes of savages who make an exception to this rule, they also make an exception to the rule of eating, the large consumption of oxygen, implied by their laborious lives, demanding a full nutritious diet—that the hyperboreans are glad to shelter themselves as much as possible from the intense cold of their winters, but that the temperature of the ice-huts to which they retire for comfort is necessarily below that of freezing water—that, finally, while the arctic man wraps himself in furs, and loses but little of his animal warmth by evaporation, the people of the south go in light clothing, and favor perspiration, naturally free, by their diet and drinks, the rapid evaporation under their burning sun carrying away the excess of heat, imparted by the climate or the oxidation of their food. And we desire to know which of these statements will be denied. Between which is there any appearance of contradiction? Or which one of them all is opposed to that theory of animal heat, which it was the object of our friend's critique to overthrow?

Our respected correspondent does us great injustice, if he supposes that we intentionally omitted any fact of moment in our recital of his charcoal experiment. Knowing that cold charcoal was readily ignited by cold nitric acid, it cannot be thought strange if we did not remember, that in the successful trial of our friend he found it necessary to take advantage of an exalted temperature. If we had been disposed to press this part of the argument, we might have added something more in reply to the question in the Critique:—"Can he (the chemist) at the teperature of 98° or 100° *out* of the animal body, excite combustion in carbon, and form carbonic acid?" to which our learned friend returns the emphatic answer, "*No, he cannot.*" We might have reminded him, not only of the ignition of charcoal by nitric acid, but of the fact, which he will doubtless regard as still more pertinent to the question, that a heap of finely powdered charcoal will sometimes take fire spontaneously by its union with the oxygen of the atmosphere; and that if a little oil be mingled in it, or if cotton, or cotton cloth, be smeared with oil and left in a pile, a spontaneous combustion is pretty certainly the result. But we were not disposed to press our friend too hard. There are cases in which a courteous knight, if compelled very much against his will to draw his weapon for the truth, before the fight begins, will carefully blunt its point and edge.

We wish our veteran and greatly respected friend would abandon this bootless, hopeless war on animal chemistry. He has triumphed so long, and in so many contests, that surely it ought not to disturb his equanimity if he should find, that, in the course of a long life devoted to the sifting of all sorts of opinions, and the defence of not a few very singular ones, he has been wrong even oftener than once. Y.

DUNGLISON'S PRACTICE OF MEDICINE.

In the short space of two years, a second edition of Dr. Dunglison's Treatise on Special Pathology and Therapeutics has been called for, and is now before the public in the neat and tasteful dress in which Lea & Blanchard issue all their valuable publications. We do not notice the fact for the purpose of passing any studied eulogy upon this work, which is now too well known to the profession to need the commendation of the press. The author has cause to be gratified with its success, and, we have no doubt, expresses himself with sincerity when he says, that it will incite him "to untiring exertion to render every succeeding edition more and more valuable." A cursory examination will satisfy any one, that great labor has been bestowed upon these volumes, and on a careful perusal it will be seen that they exhibit the present state of our knowledge relative to special pathology and therapeutics. The work is justly a great favorite with students of medicine, whose exigencies the learned author seems especially to have consulted in its preparation. Y.

WESTERN ENTERPRISE.

We have been shown a specimen of *A Practical Treatise on Diseases of the Skin*, by Dr. N. Worcester, of Cincinnati, which is to be issued in one volume by Thomas Cowperthwait & Co., Philadelphia, and Desilver & Burr, Cincinnati. The treatise will comprise about 300 pages, and will be accompanied by sixty colored figures. An extensive formulary will also be added. The text is compiled mainly from the works of Alibert, Cazenave, Schedel, Biett, &c., the figures selected from Willan, Bateman, Thomp-

son, Rayer, and Baumes. Of Dr. Worcester's competency to this task, we do not entertain a doubt, and we think he will be doing an essential service to the profession. A treatise, such as he proposes making this, is greatly needed. The specimen before us consists of drawings only, and they look exceeding well.

Dr. Lawson, of Cincinnati, (recently appointed to a professorship in Transylvania University) is republishing, with additions, Hope's *Illustrations of Morbid Anatomy*. It is to be issued in four parts, one of which has appeared. This work is especially valuable on account of its beautifully colored drawings, and we bespeak for it, what it should not fail to have, a welcome reception by the profession in the West. It is printed for subscribers only. Messrs. Desilver & Burr, Cincinnati, are the general agents.

C.

TRANSYLVANIA MEDICAL SCHOOL.

Our worthy contemporary, the Boston Medical and Surgical Journal, thinks it "very strange that such agreeable men," as the professors in the Lexington medical school, "after having been associated many years, could suddenly fall to loggerheads."

> ——"In faith, *'twas* strange, 'twas passing strange.
> 'Twas pitiful, 'twas wondrous pitiful."

But, unfortunately, it is but too true. These very "agreeable men" did "fall to loggerheads," and the result is that one of them, Dr. Cross, has left the school, having, it is said, been invited by his colleagues to take that decisive step. The extruded professor is understood to feel that he has been badly used by his late associates, and that he will be obliged to vindicate his character against the aspersions of certain of these "agreeable" gentlemen. Meantime, Dr. Bush sits on his seat more firmly than ever, having been advanced to the professorship of anatomy, Dr. Dudley consenting, at length, to occupy a single chair. Dr. Lawson, editor of the Western Lancet, has been elected to the professorship made vacant by the resignation of Dr. Cross. This is the *last* phasis of this changeful medical luminary. If other revolutions occur in the next month, they shall be duly noted.

Y.